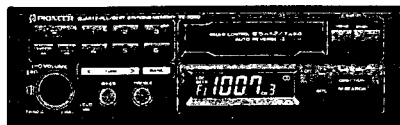


Service Manual

PIONEER
The future of sound and vision.



The photo shows the model KE-3090B.

ORDER NO.
CRT1167

CASSETTE CAR STEREO WITH FM/MW/LW ELECTRONIC TUNER

KE-3090SDK

 WG

KE-3090

 EW

KE-3090B

 EI

KE-3060SDK

 WG

KE-3060

 EW

KE-3060B

 EI

CASSETTE CAR STEREO WITH FM/AM ELECTRONIC TUNER

KE-3070QR

 ES

KE-3040

 ES

See the Service manual CX-166 (CRT1094) when servicing the cassette mechanism assy.

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- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

EK © JUNE 1988 Printed in Japan.

6. ADJUSTMENT

• Connection Diagram

NOTICE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

Z: Output impedance of SSG.

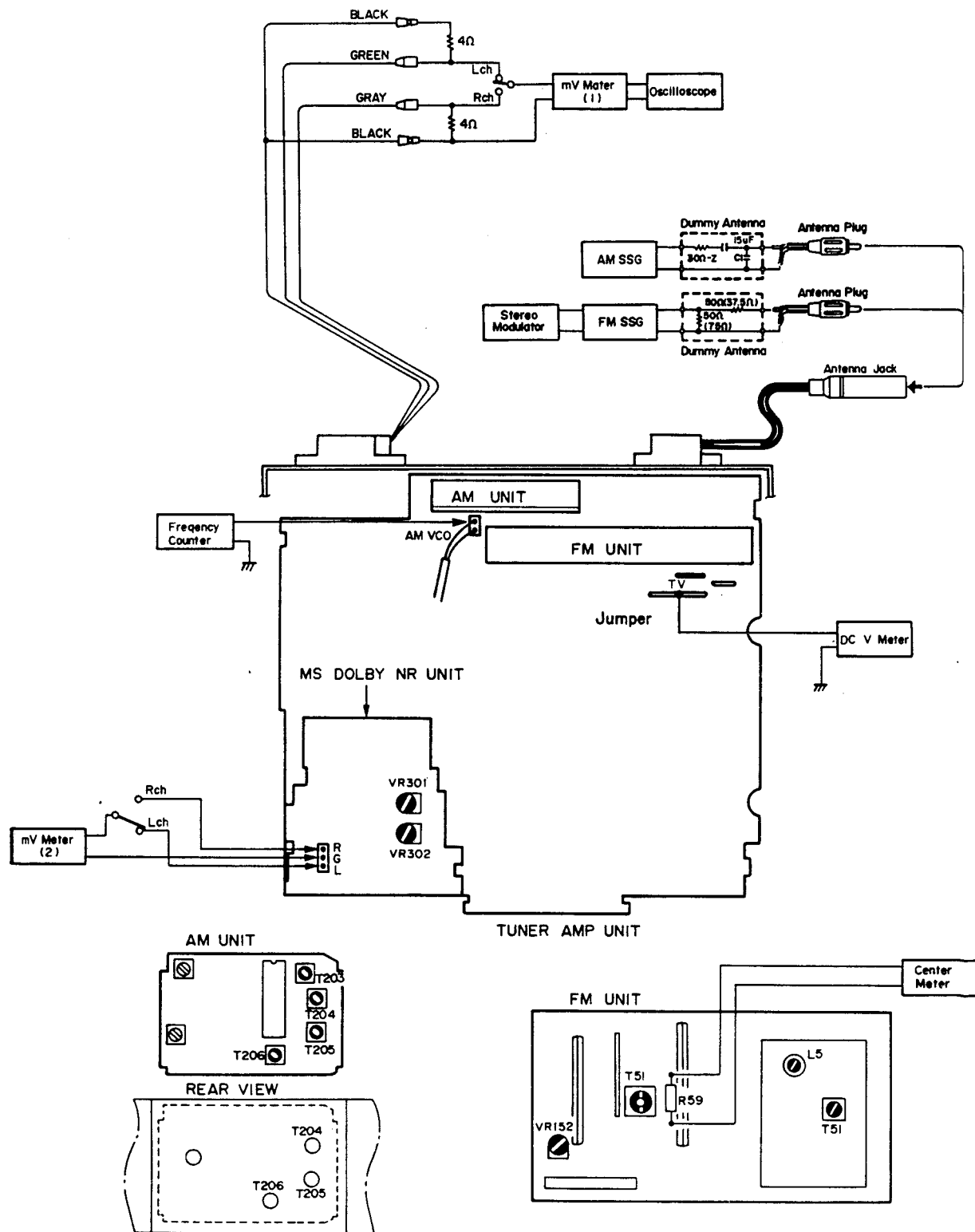


Fig. 8

MW/LW ADJUSTMENT (WG, EW, EI)

	No.	AM SSG (400Hz, 30%)		Displayed Frequency (kHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (kHz)	Level (dB)			
Tuning Volt	1	(MW MODE)		1,602	T203	Verify that DC V Meter is less than 6.5V
	2	(LW MODE)		153	—	Verify that DC V Meter is more than 2.0V
IF	1	999	20-25	999	T204, 205, 206	mV Meter (1): Maximum

AM ADJUSTMENT (ES) *When tuning step at 10kHz.

	No.	AM SSG (400Hz, 30%)		Displayed Frequency (kHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (kHz)	Level (dB)			
Tuning Volt	1			1,602 *(1,620)	T203	Verify that DC V Meter V is less than 6.5V
	2			531 *(530)	—	Verify that DC V Meter is more than 2.0V
IF	1	999 *(1,000)	20-25	999 *(1,000)	T204, 205, 206	mV Meter (1): Maximum

FM ADJUSTMENT * Stereo MOD.: 1kHz, L+R=90% , Pilot=10%

	No.	FM SSG (400Hz, 100%)		Displayed Frequency (MHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (MHz)	Level (dB)			
IF	1	98.1 Unmodulated	60	98.1	T51	Center Meter: 0
Front End	1			108.0	L5	DC V Meter: 7.4V
	2			87.5	—	Verify that DC V Meter is more than 0.7V
	3	98.1	5-10	98.1	T1	mV Meter (1): Maximum
ARC	1	98.1*	35	98.1	VR152	mV Meter (1): Separation 5dB

DOLBY NR ADJUSTMENT (3090 SDK, 3090, 3090B, 3070 QR)

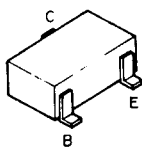
No.	Cassette Tape	Adjusting Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz, 200nwb/m)	VR301 (Lch) VR302 (Rch)	mV Meter (2): -10dBs \pm 1dB (DOLBY NR Switch: OFF) (METAL Switch: OFF)

• ICs and Transistors

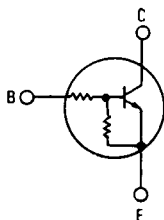
DTC124ES
DTC144ES
DTC314TS



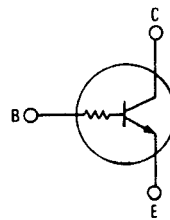
DTC124EK



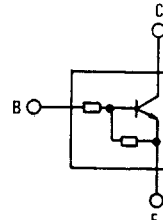
DTC124ES
DTC144ES



DTC314TS



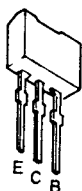
DTC124EK



2SK435



2SD1919



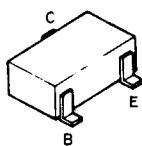
2SA1048
2SC1740S
2SC2458
2SC3113



2SC2026
2SC2498



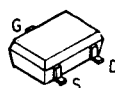
2SA1162
2SA1179
2SC2712
2SD601



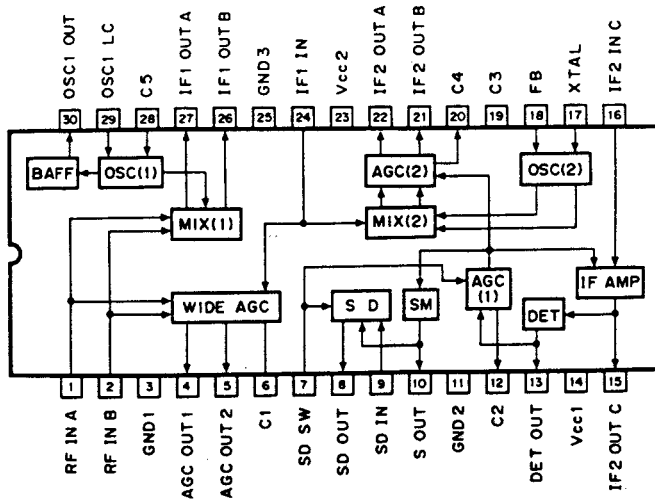
2SK330



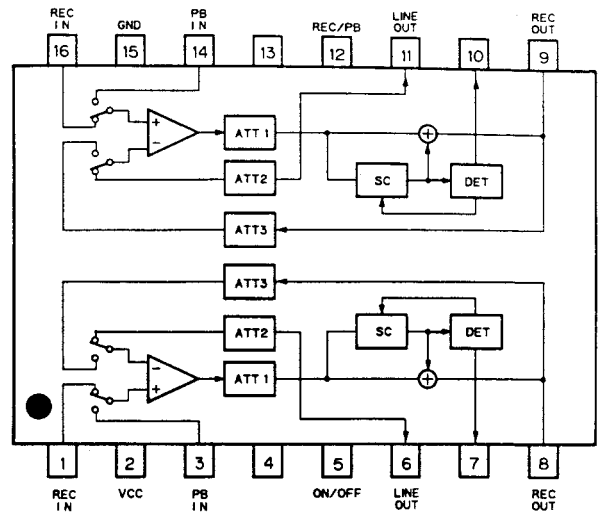
2SJ106



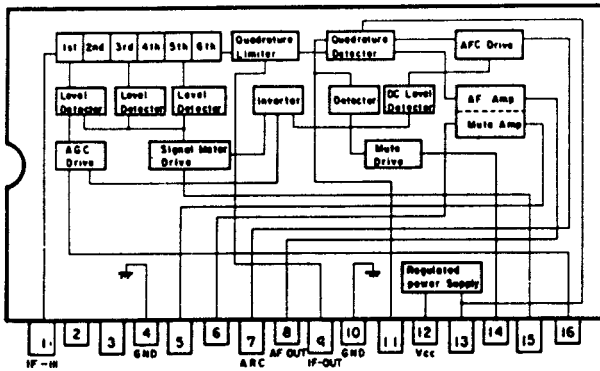
PA4010



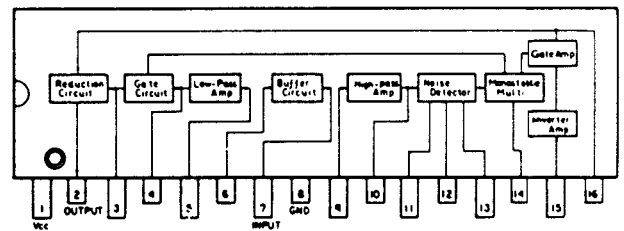
CX1102P



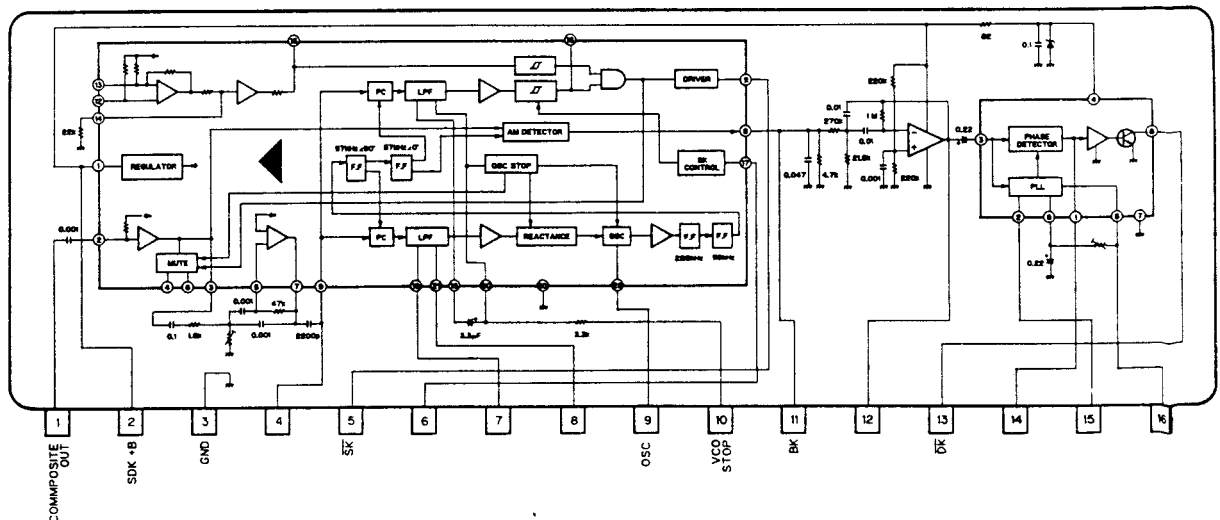
LA1140B



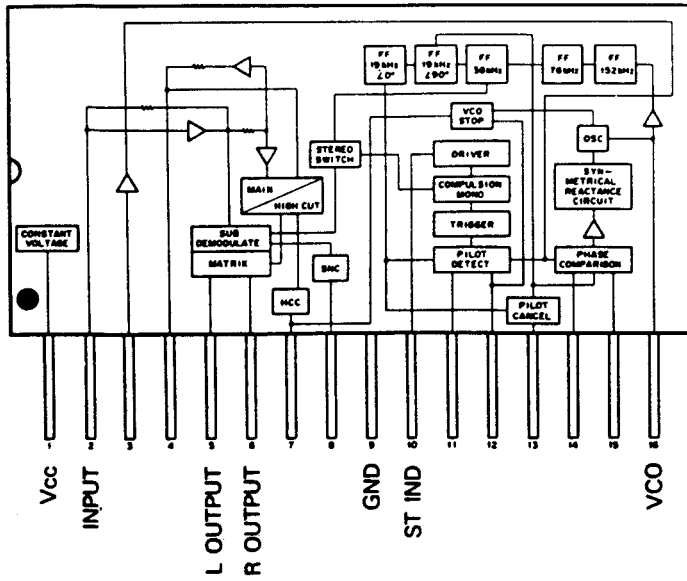
LA2110



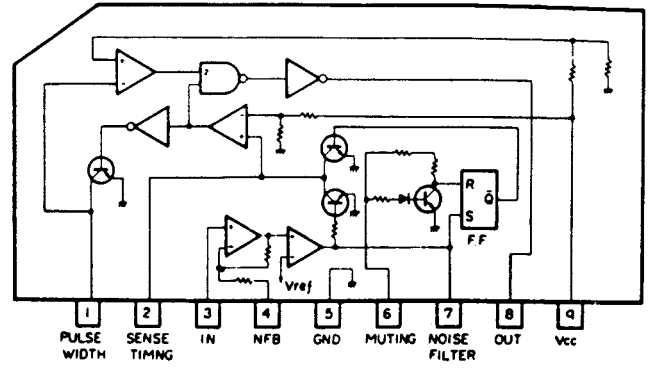
KHA142



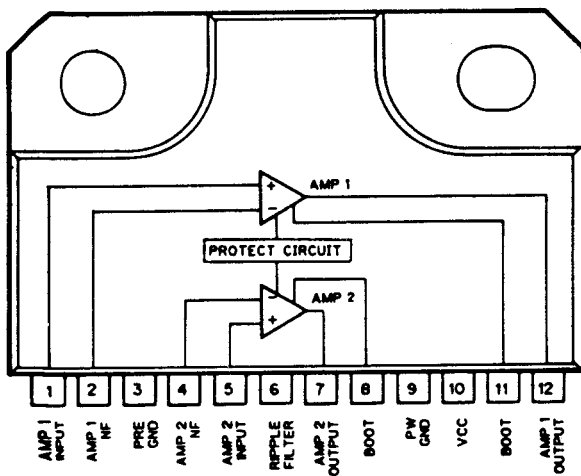
LA3430P



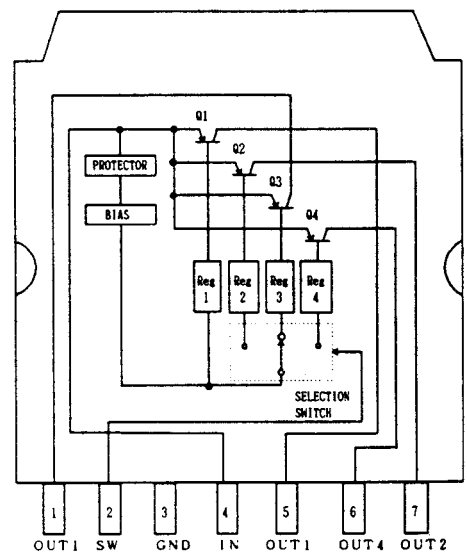
PA0011



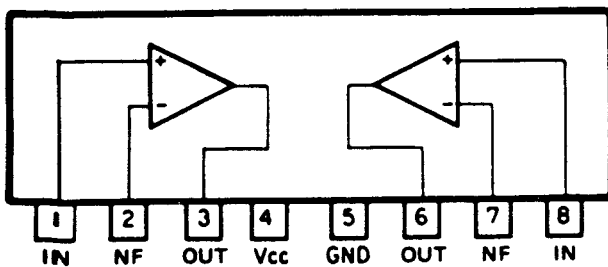
TA7280P



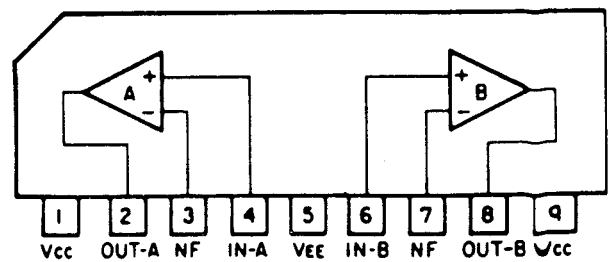
TAB214K



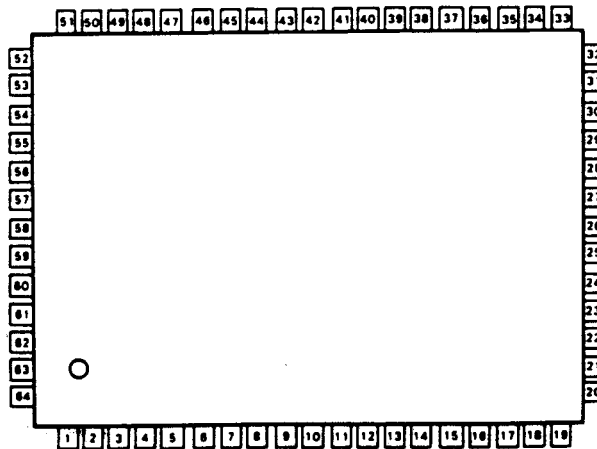
M51522AL



TA75558S



*PD4163



IC's marked by * are MOS type.

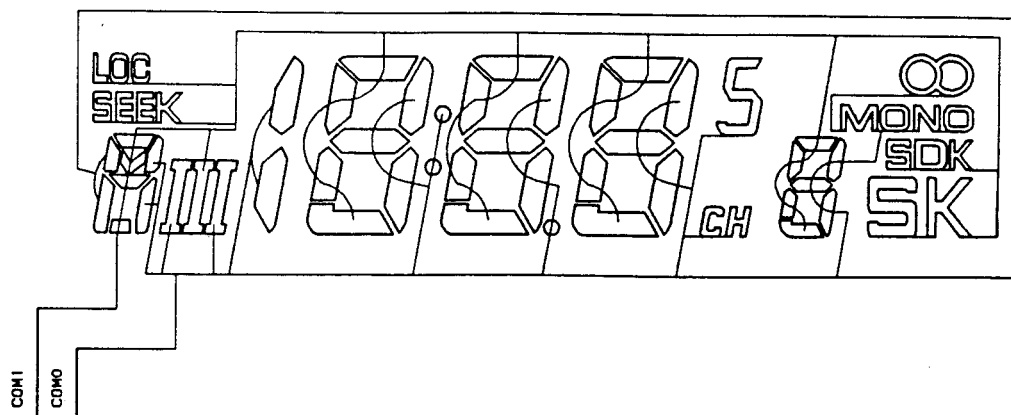
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

●Pin Functions

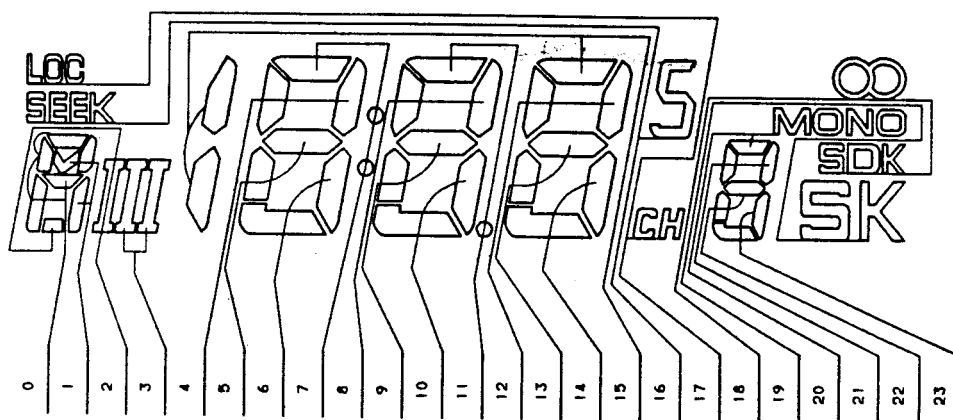
Pin No.	Pin Name	I/O	Function and Operation												
1	NC	—	No. connected to internal chips.												
2 3	EO1 EO2	Output CMOS 3 state	PLL error output. H level output by these terminals when division of local oscillator frequency (VCO output) is higher than reference frequency. L level output when lower. This output is applied to a varactor diode, via an external low pass filter. EO1 and EO2 output identical waveforms.												
4 8	GND GND	— —	GND terminal												
5	AM IN		Not used.												
6	VCO IN	Input	AM: Inputs 0.6 — 15 MHz (0.3 Vp-p MIN) local oscillator reference frequency (VCO output). This terminal is active when direct division system is selected. FM: Inputs 15 — 150 MHz (0.5 Vp-p MIN) local oscillator reference frequency (VCO output). This terminal is active when swallow counter method is selected.												
7	CE	Input	Device signal input. H level during normal device operation, L level when device is not being used. PLL is in disable status while this terminal is L level. For models without clocks, internal clock and CPU operation is halted while this terminal is L level, and memory is maintained by low demand current (10 μ A MAX). Change of CE terminal from L to H results in device reset and the program to start from address 0.												
9 10	FM/AM LW	Output CMOS Pushpull	Power supply switching output terminal from tuner. Output as illustrated in following table according to outputs of two terminals. <table border="1"> <tr> <th>BAND \ PIN</th><th>FM</th><th>MW</th><th>LW</th></tr> <tr> <th>FM/AM</th><td>H</td><td>L</td><td>L</td></tr> <tr> <th>LW</th><td>L</td><td>L</td><td>H</td></tr> </table>	BAND \ PIN	FM	MW	LW	FM/AM	H	L	L	LW	L	L	H
BAND \ PIN	FM	MW	LW												
FM/AM	H	L	L												
LW	L	L	H												
11	MUTE	Output CMOS Pushpull	Mute output. Output for elimination of shock noise when PLL lock is released. Active when high.												
12	DK IN	Input	Inputs message recognition signal (DK) sent during traffic information broadcasts only. Since the DK signal is sent by amplitude modulation of a 57 kHz subcarrier wave by 125 Hz, it counts the input signals in accordance with the program. A DX signal is judged as being preset when 125 Hz is not detected twice consecutively. DK signal is judged as not being preset when 125 Hz is not detected 4 times consecutively. An interrupt operation is performed when a DK signal is judged as being present. This count is only performed in the SDK mode.												
13	SK IN	Input	Determines whether traffic information is being broadcast and inputs a broadcast detect signal (SK). Broadcast is detected when input signal is L level, and "SK" indicator is displayed. Besides being used as the SDK mode auto tuning stop signal, SK input controls the SK mode and SK alarm functions.												

Pin No.	Pin Name	I/O	Function and Operation																								
14	ST	Input	Inputs stereo broadcast detection signal. Stereo is detected when input signal is L level, and "ST" indicator is displayed. Display is cleared when input signal is at H level. "ST" indicator is OFF during mute signal output.																								
15	TAPE	Input	Tape signal input terminal. Since this terminal is A/D (analog/digital) input, 2.461 V and above is the H level tape mode.																								
16	IF	Input	MW, LW band center frequency input terminal.																								
17	SD	Input	Judges whether or not a broadcast is present during auto tuning. A broadcast is judged as being present when L level is input.																								
18	SI	Input	Not used																								
19	NC		Not used																								
22																											
23	SEEK	Output CMOS	"L" level: SEEK, BSM, BSA and PSCN																								
24	XO	Input CMOS	Quartz oscillator terminal connection terminal. 4.5 MHz quartz crystal used.																								
25	XI	Input CMOS																									
26	VDD		Device power supply terminal. 5V ± 10% voltage supplied.																								
58	VDD																										
27	PEE	Output CMOS	Alarm output terminal. Alarm output when SK in SDK mode remains at H level continuously for more than 30 seconds.																								
28	MONO	Output CMOS	Controlled by MONO key. L level for MONO, H level output for AUTO.																								
29	DK OUT		Controlled by DK IN (terminal # 12) input signal. L level output when DK IN input signal is detected as 125 Hz while SK IN (terminal # 13) input is L level. Since DK IN measurement operation is only performed in SDK mode, terminal is always H in SDK mode except under above noted conditions.																								
30	LOCH	Output CMOS	Halt sensitivity switching terminals controlled by LOC and BSM keys.																								
31	LOCL	Output CMOS	<table><tr><td></td><td>DX-SEEK (PSCN)</td><td>LOC-SEEK</td><td>BSM-L</td><td>BSM-M (AM)</td></tr><tr><td>LOCH</td><td>L</td><td>L</td><td>L</td><td>L</td></tr><tr><td>LOCL</td><td>L</td><td>H</td><td>L</td><td>H</td></tr></table> <table><tr><td></td><td>BSM-H</td><td>During broadcast reception</td></tr><tr><td>LOCH</td><td>H</td><td>L</td></tr><tr><td>LOCL</td><td>H</td><td>L</td></tr></table>		DX-SEEK (PSCN)	LOC-SEEK	BSM-L	BSM-M (AM)	LOCH	L	L	L	L	LOCL	L	H	L	H		BSM-H	During broadcast reception	LOCH	H	L	LOCL	H	L
	DX-SEEK (PSCN)	LOC-SEEK	BSM-L	BSM-M (AM)																							
LOCH	L	L	L	L																							
LOCL	L	H	L	H																							
	BSM-H	During broadcast reception																									
LOCH	H	L																									
LOCL	H	L																									
32	LCD23	Output CMOS	Segment signal output terminal to LCD. LCD display performed using COM0, COM1 matrices.																								
55	LCDO																										
48	KS7	Output CMOS	Key return signal source output terminal.																								
55	KS0																										
56	COM0	Output CMOS	Common signal to LCD. GND, 1/2VDD, VDD values (5 ms interval) output at 100 Hz cycle. Segments between these terminals and LCDO — LCD23 with ± VDD potential difference are lit.																								
57	COM1	Output CMOS																									
59	K3	Input	Key matrix input terminal.																								
62	K0																										
63	S.L.	Input	Station level analog voltage input. Used for broadcast detection in MW, LW band auto tuning.																								
64	B.U.	Input	Back up voltage sense terminal. "H" Level: Back up on																								

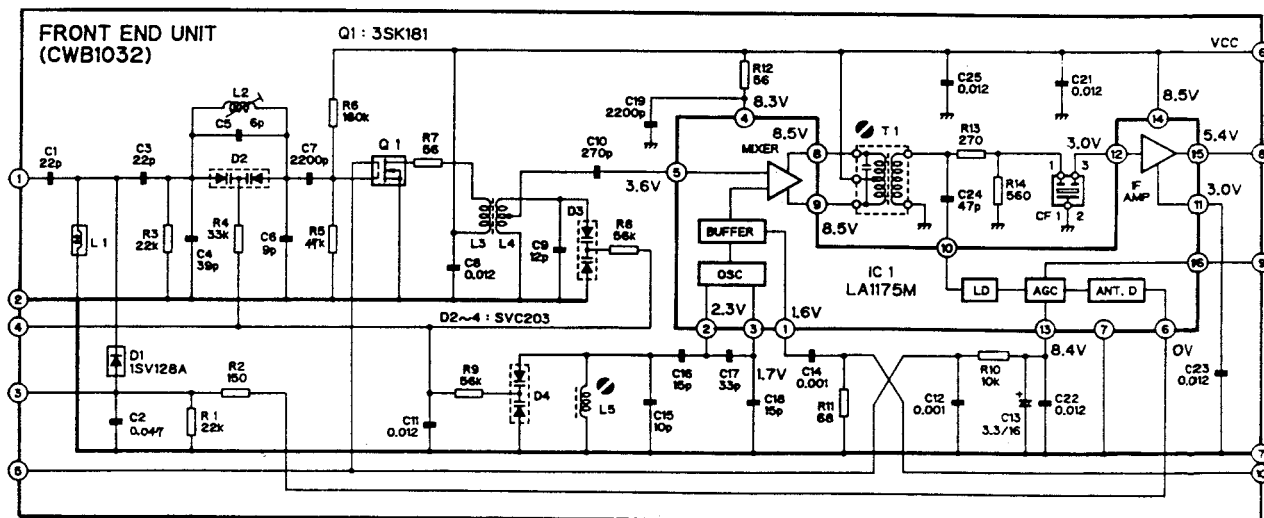
• LCD (CWW1216)
COMMON



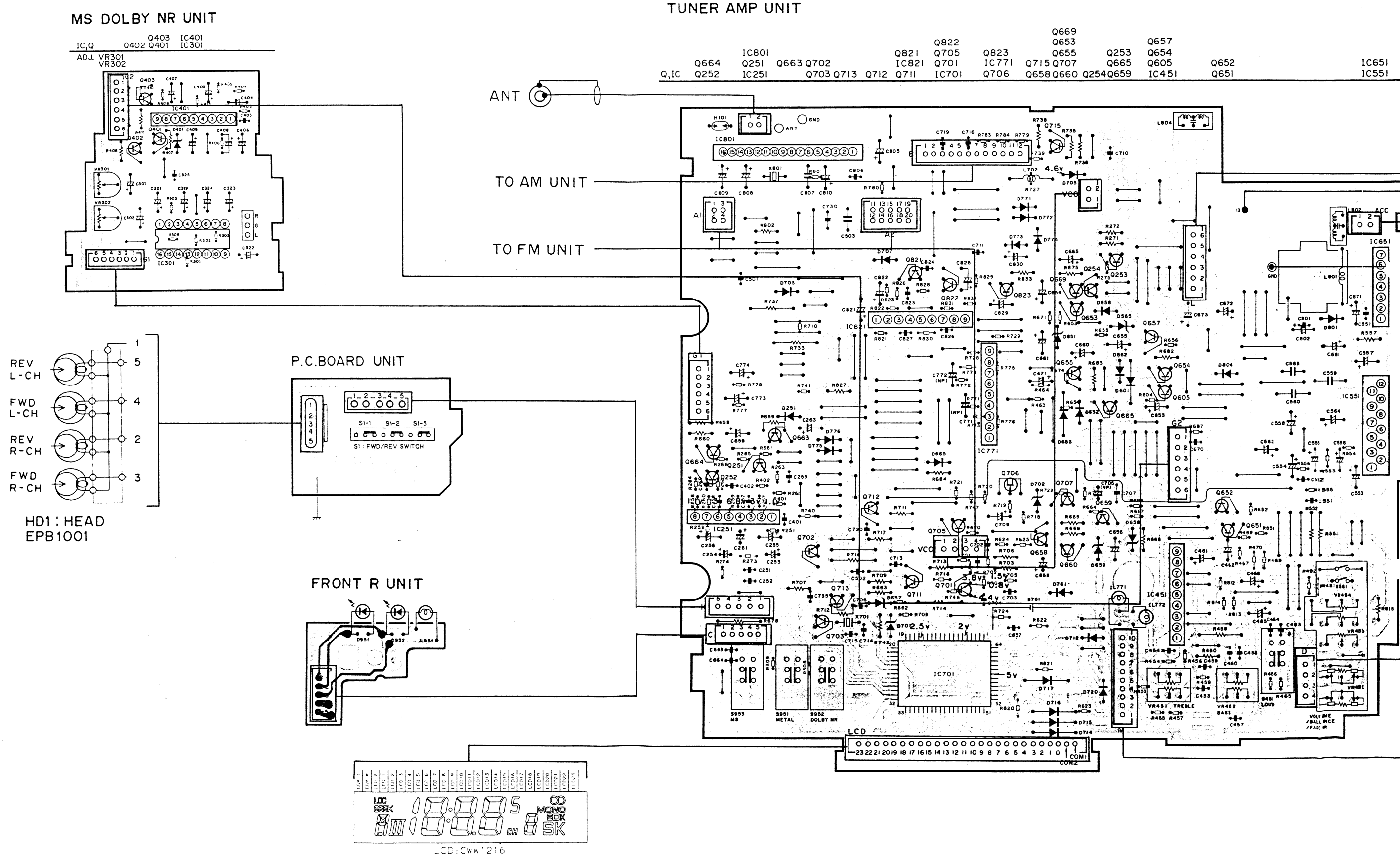
SEGMENT



• Front End Unit (CWB1032)

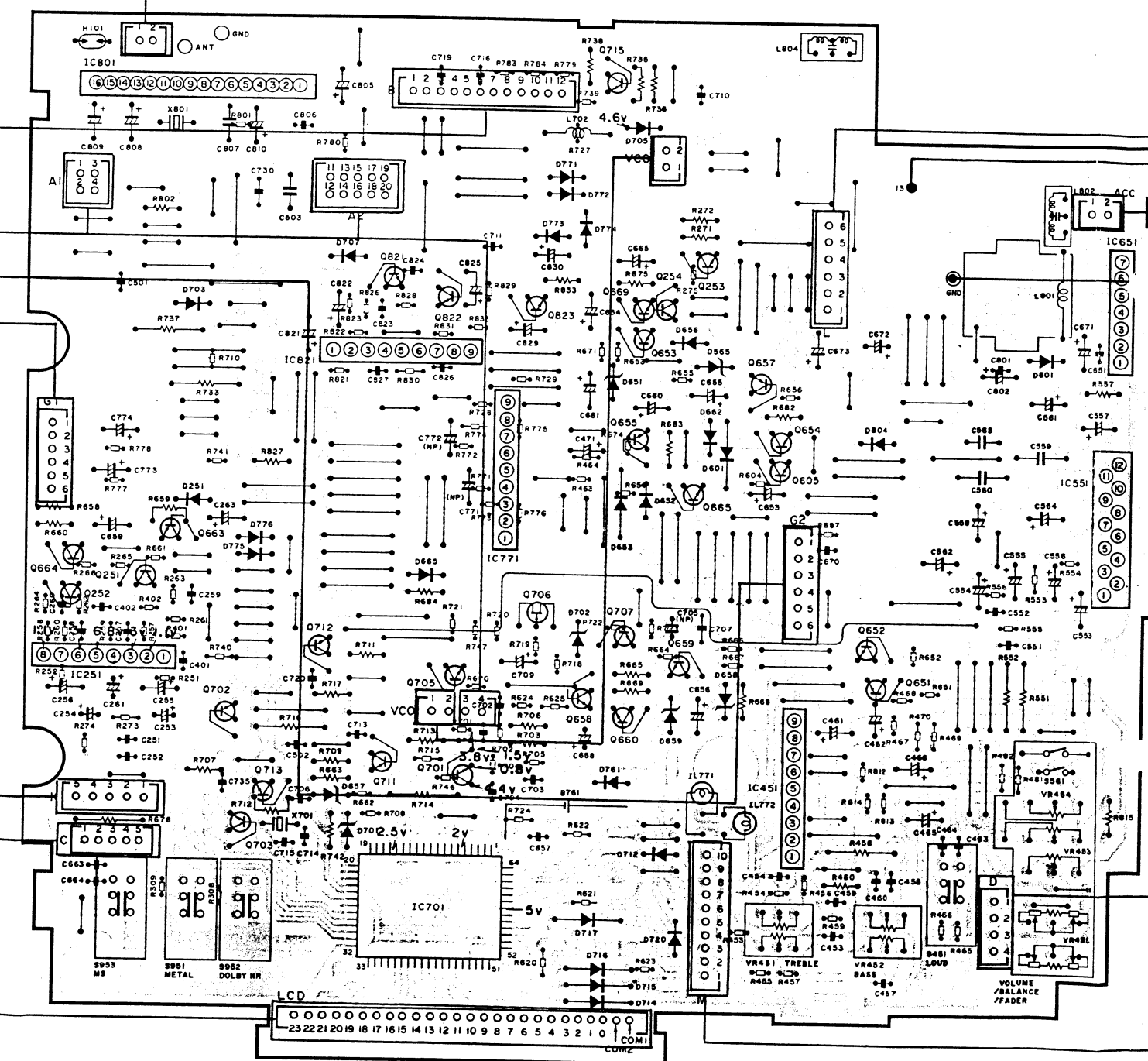
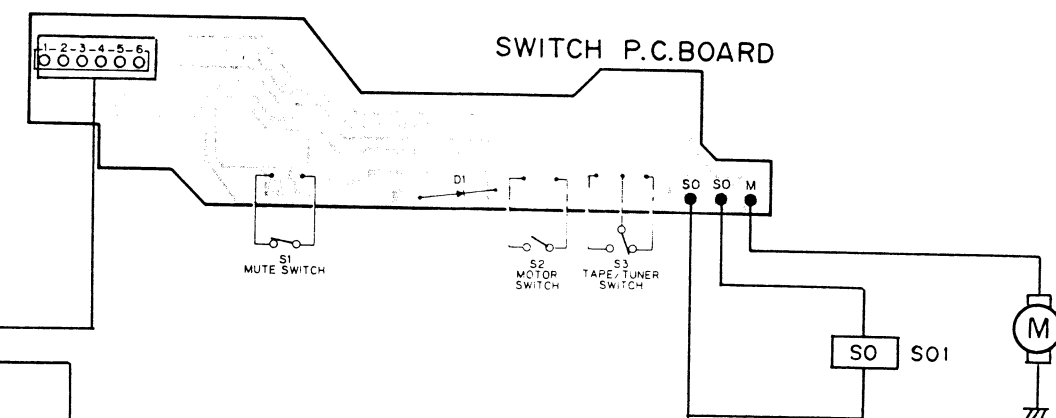


7. CONNECTION DIAGRAM (KE-3090SDK)



TUNER AMP UNIT

Q, IC Q664 IC801 Q252 Q251 Q663 Q702 IC251 Q703 Q713 Q712 Q711 Q821 Q705 IC821 Q701 IC701 Q822 Q706 Q823 IC771 Q715 Q707 Q658 Q660 Q254 Q659 Q653 Q655 Q253 Q665 Q657 Q654 Q605 IC451 Q652 Q651 IC651 IC551



1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO	20
14	ANT	21
15		22
16		23
17		24
18		25
19		26

FRONT L UNIT

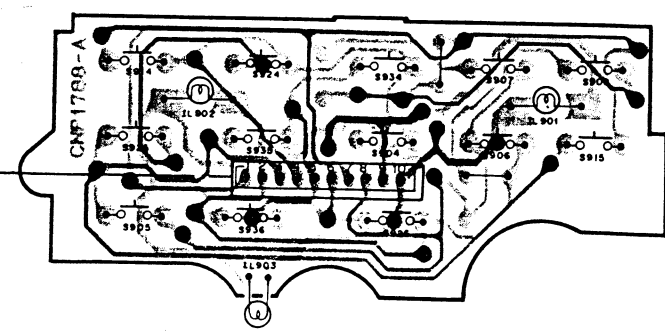


Fig. 9

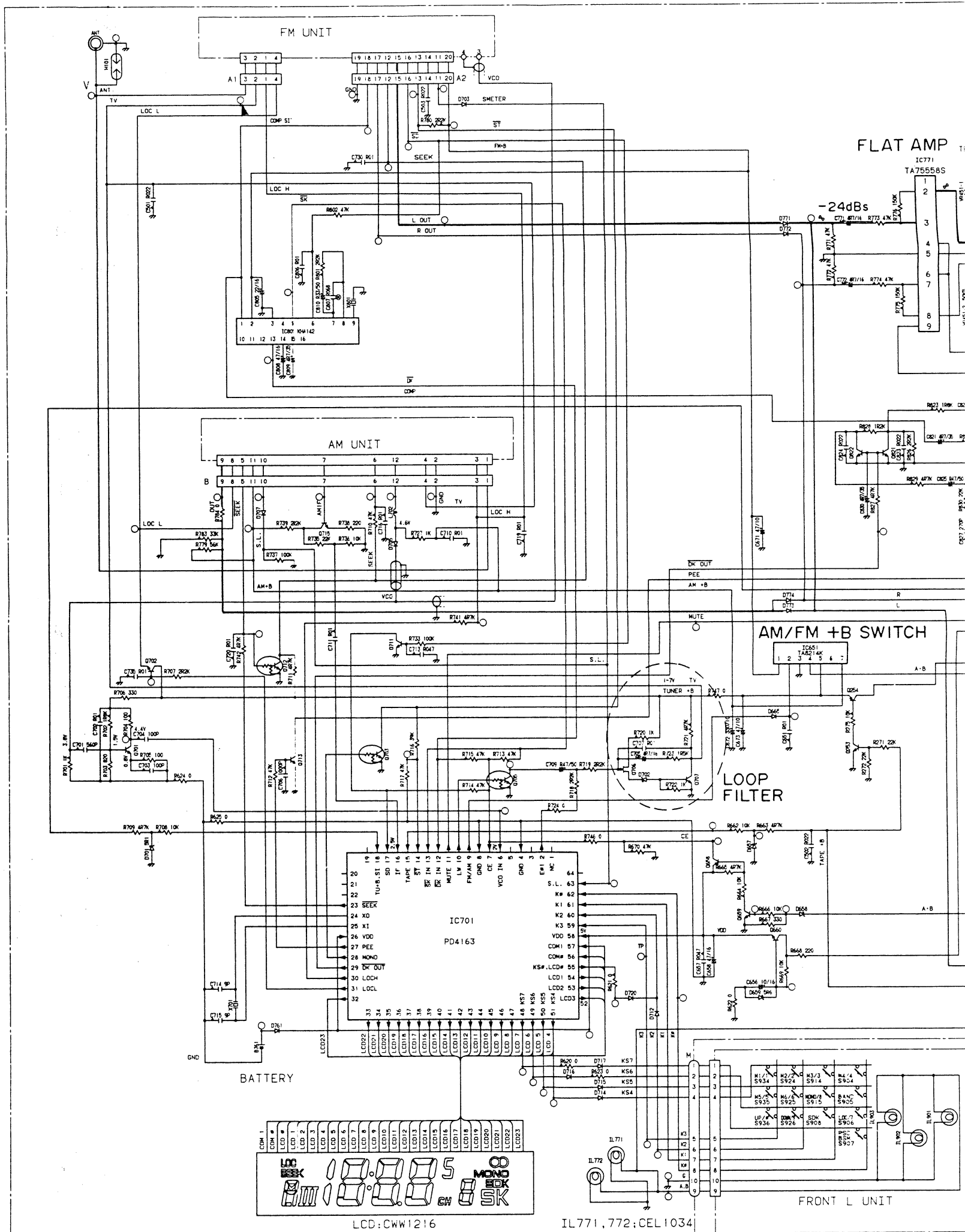
8. SCHEMATIC CIRCUIT DIAGRAM (KE-3090SDK)

1	DO	3
2	ANT	4
5		7
6		8

NOTE:

- Indicates a chip capacitor.
- Indicates a chip resistor.
- Indicates a chip diode.
- Indicates a chip transistor.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022



TUNER AMP UNIT

Q254.654.657.658	25A104B
Q251.252.253.655.659	25C245B
Q60.663.664.702.707.713	
S21.822.823	
D701	25C249B
D711.715	25C3113
Q659.657	25C1919
Q659.703.705.712	DTC144ES
Q655	DTC314TS
Q700	25K330

Q651.652	25D146RS
D705	25S35
D801	25S35
D701	25S35
D702	25S35
D657.701	25S35
Q659	25S35
D658	25S35
D651	25S35
D665	25S35

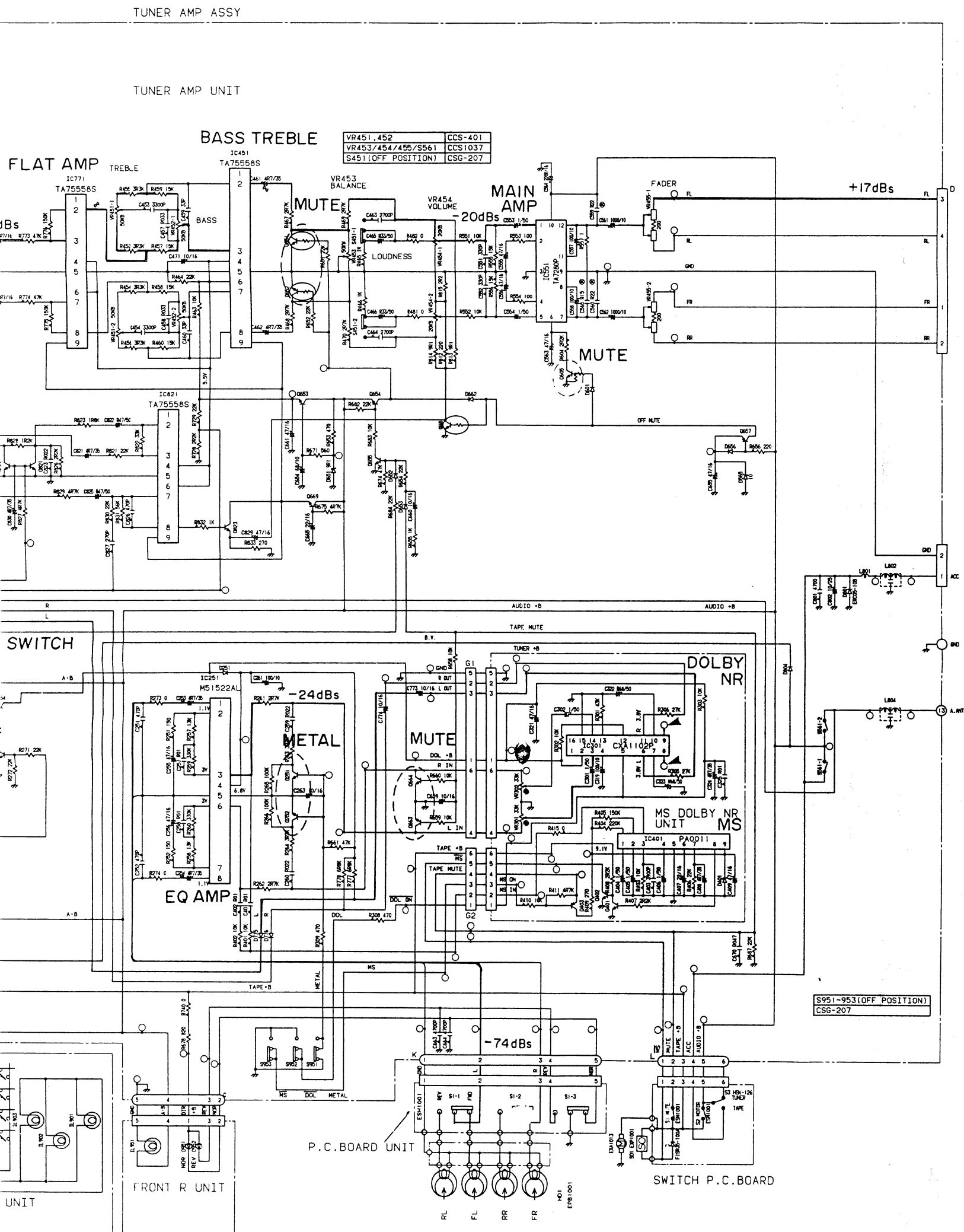
D651.653.714.715.716.717	25S55
OTHER DIODE	25S35

FRONT L UNIT

IL901-903	CEL1004
S924-S925.94.9.924-926	CSU1021

FRONT R UNIT

D951.952	S.R-32003.M
IL951	CEL1004



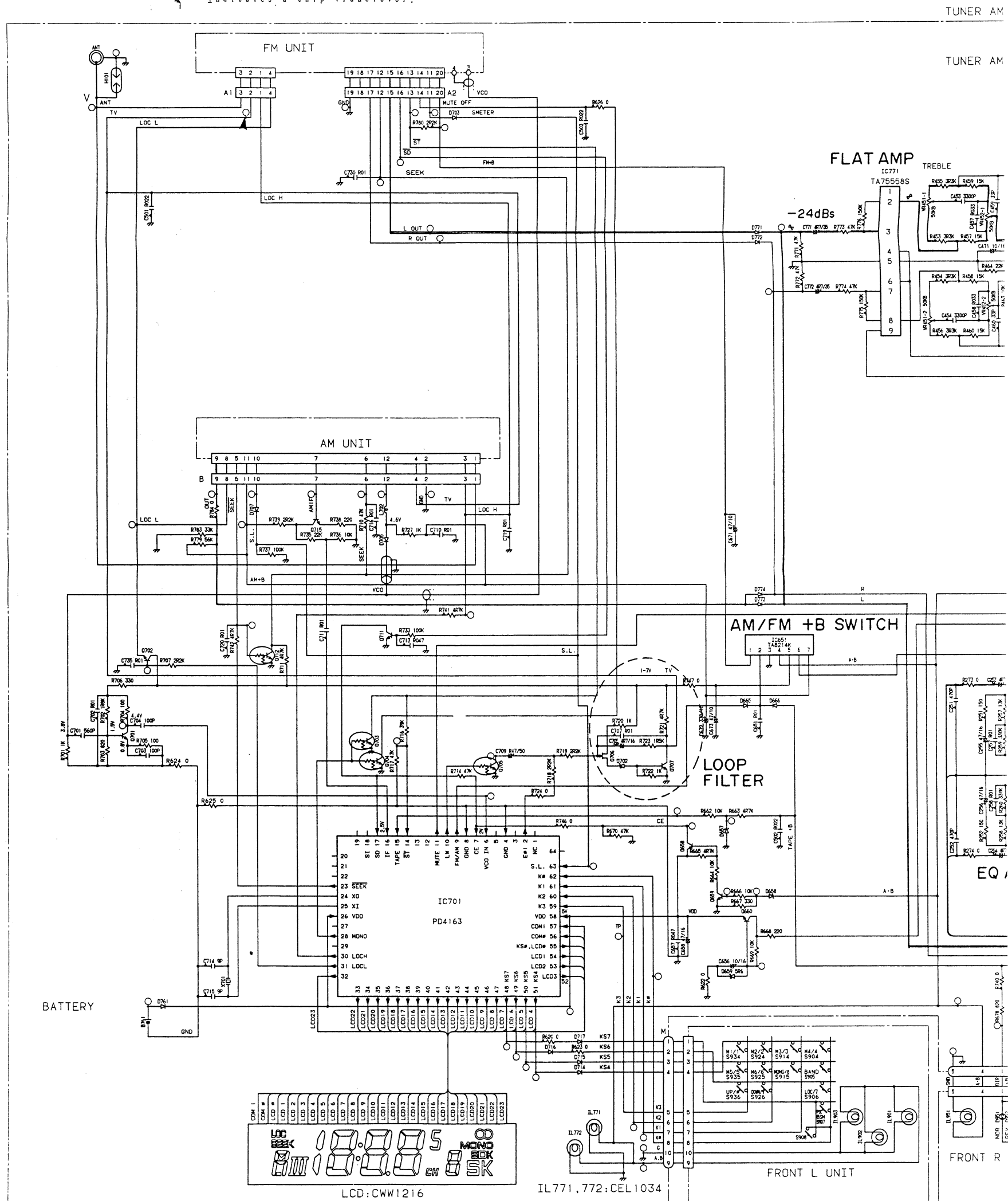
9. SCHEMATIC CIRCUIT DIAGRAM (KE-3090, 3090B)



NOTE:

- Indicates a chip capacitor.
- Indicates a chip resistor.
- Indicates a chip diode.
- Indicates a chip transistor.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2 → 2R2
0.022 → R022



TUNER AMP UNIT

D654, 657, 658	2SA1048
D251, 252, 655, 659,	2SC2458
660, 663, 664, 702, 707	
C701	2SC2496
C711, 715	2SC3113
D669, 653	2SD1919
C225, 703, 705, 712, 704	DT014438
D651, 652	2SD1468S
C706	2SK330

D705	ISS135
D601	ERC05-10B
D761	MA700
C702	HZS3R0E82
D657	HZS5R1E82
D659	HZS5R6J82
D655	HZS7R5E82
D651	HZS9R1E81
D655	HZS1CE81

D601, 653, 714-717	1S1555
OTHER DIODE	1S133

FRONT L UNIT

IL901-903	CEL1004
S904-906, 914, 915, 924-926	CSG1021
934-936	

FRONT R UNIT

D951, 952	SLR-320DJ3-M
L951	CEL1004

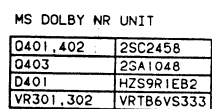
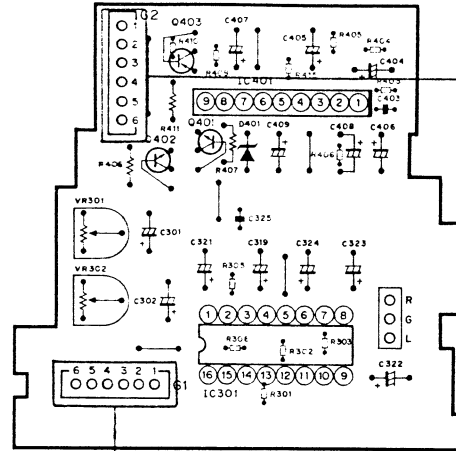


Fig. 11

10. CONNECTION DIAGRAM (KE-3090, 3090B)

MS DOLBY NR UNIT

IC,Q Q403 IC401
ADJ. VR301 Q402 Q401 IC301
VR302



TUNER AMP UNIT

Q664 Q251 Q663 Q702 Q701 IC771 Q715 Q707 Q669 Q653 Q657
Q,IC Q252 IC251 Q704 Q703 Q712 Q711 IC701 Q706 Q658 Q660 Q659 IC451 Q652 IC651 IC551

ANT

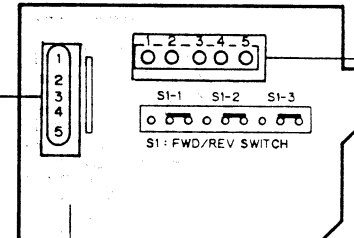
TO AM UNIT

TO FM UNIT

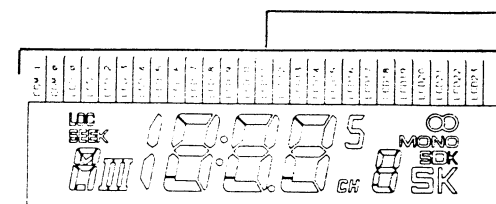
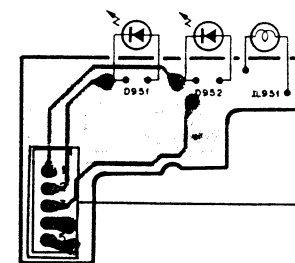
REV L-CH
FWD L-CH
REV R-CH
FWD R-CH

HD1: HEAD
EPB1001

P.C. BOARD UNIT



FRONT R UNIT

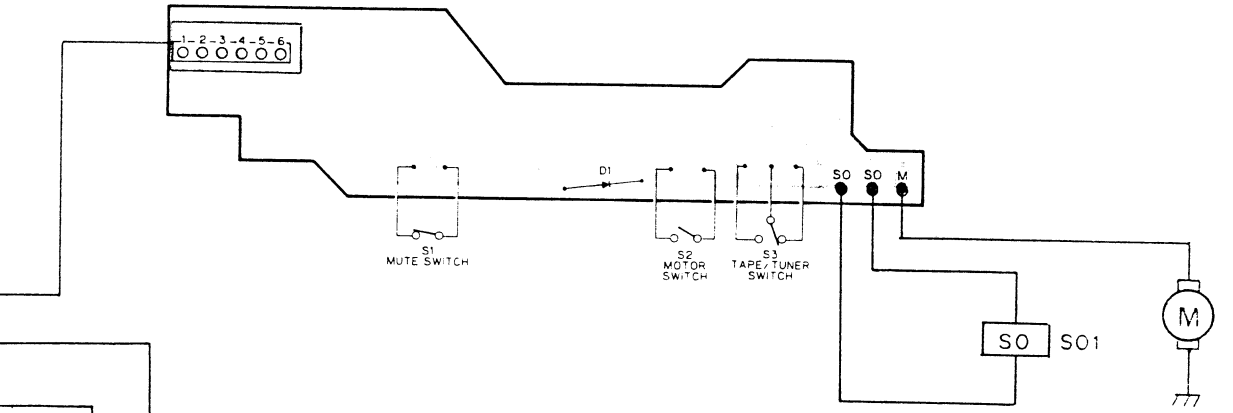


LCD: CAW1216

TUNER AMP UNIT

Q664 Q251 Q663 Q702 Q669 Q653 Q657 Q654 Q655 Q707 Q652 Q651
Q,IC Q252 IC251 Q704 Q703 Q712 Q711 IC701 Q706 Q658 Q660 Q659 IC451 Q651 IC651 IC551

SWITCH P.C. BOARD



1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO ANT	20
14		21
15		22
16		23
17		24
18		25
19		26

FRONT L UNIT

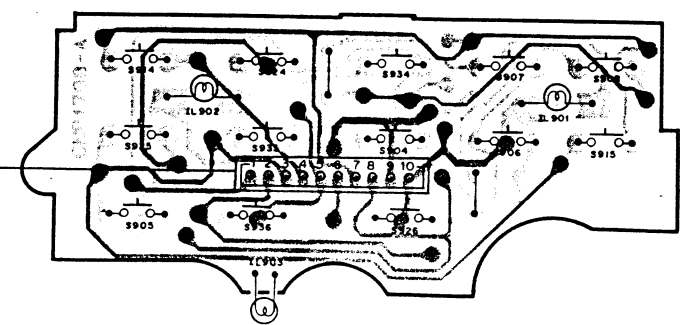
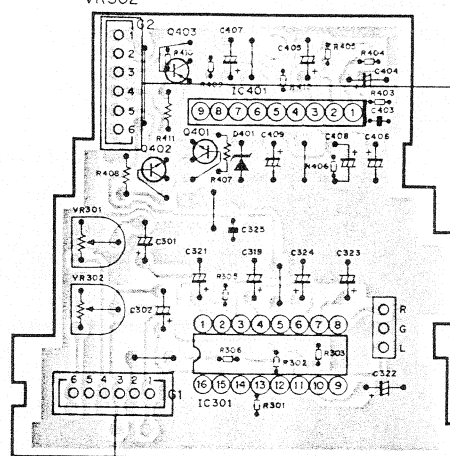


Fig.12

11. CONNECTION DIAGRAM (KE-3070QR)

MS DOLBY NR UNIT

IC,Q Q403 IC401
Q402 Q401 IC301
ADJ. VR301
VR302



TUNER AMP UNIT

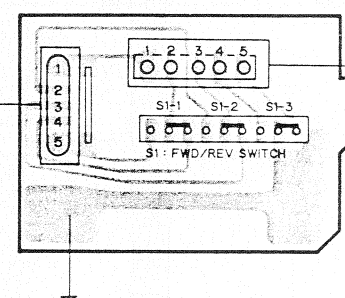
Q664 Q251 Q663 Q702 Q701 IC771 Q715 Q707 Q669 Q653 Q657
Q252 IC251 Q704 Q703 Q712 Q711 IC701 Q706 Q658 Q660 Q659 IC451 Q651 IC651
IC551

ANT

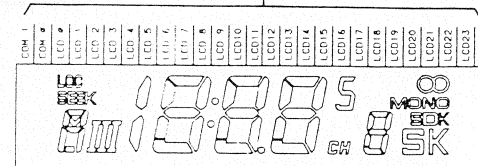
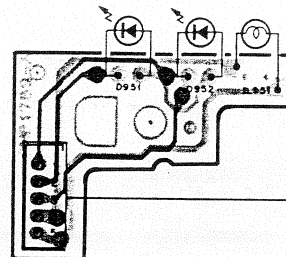
TO AM UNIT

TO FM UNIT

P.C. BOARD UNIT



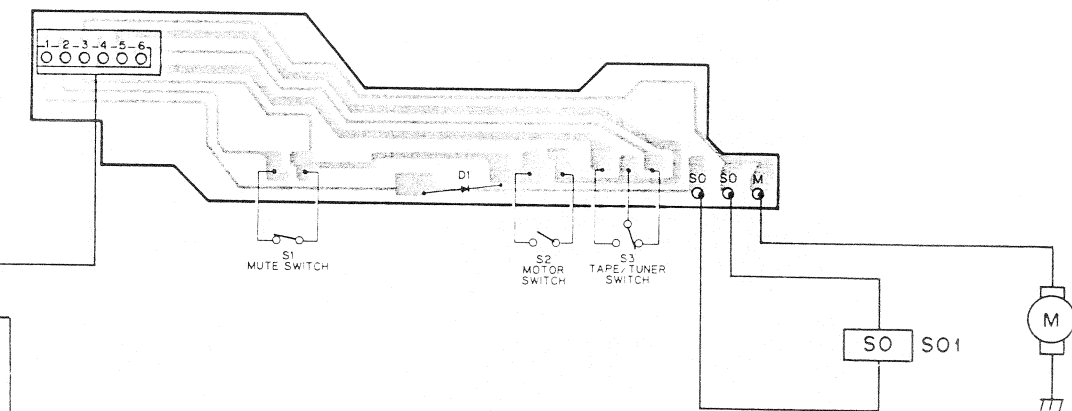
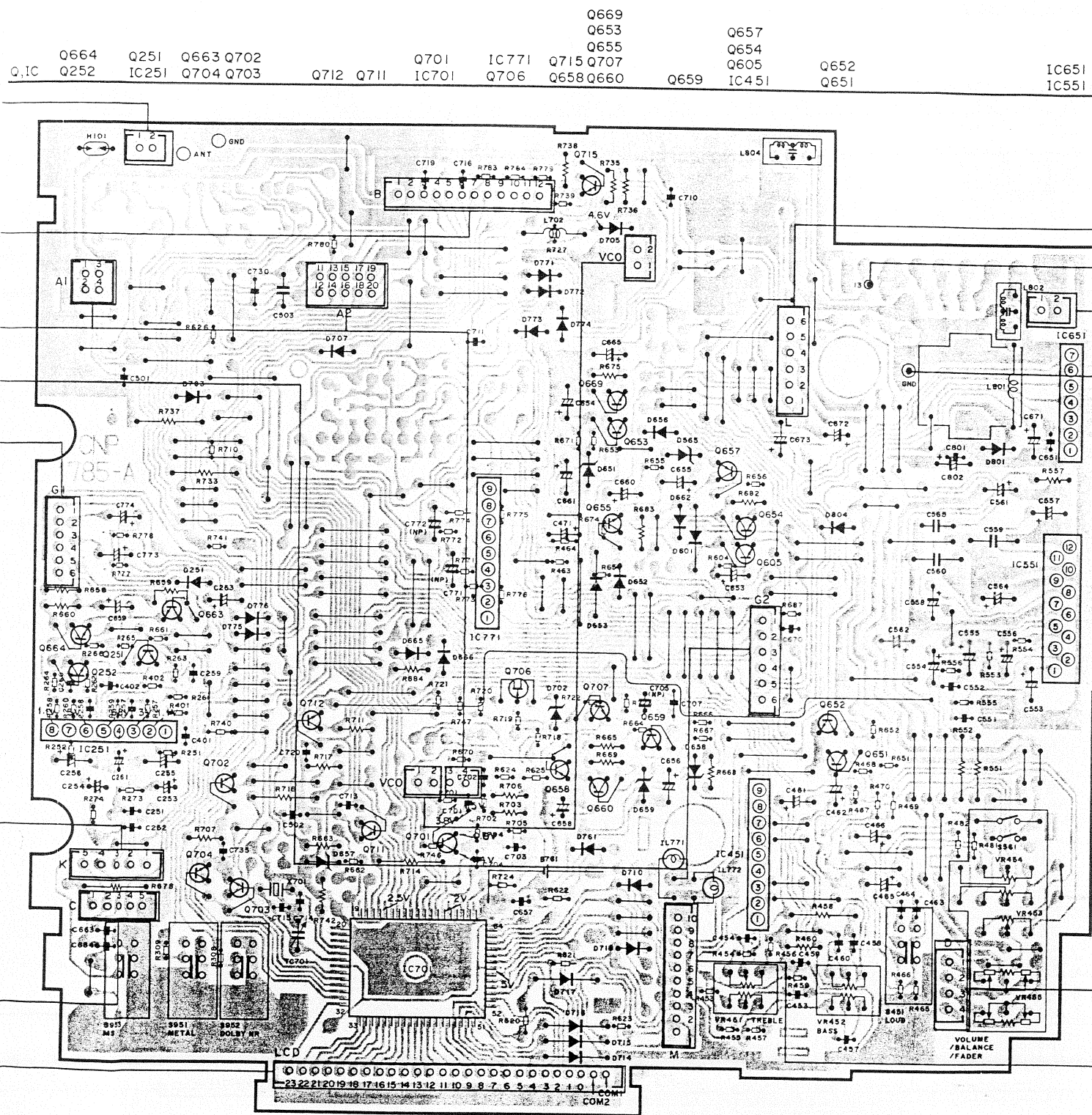
FRONT R UNIT



LCD: CWW1216

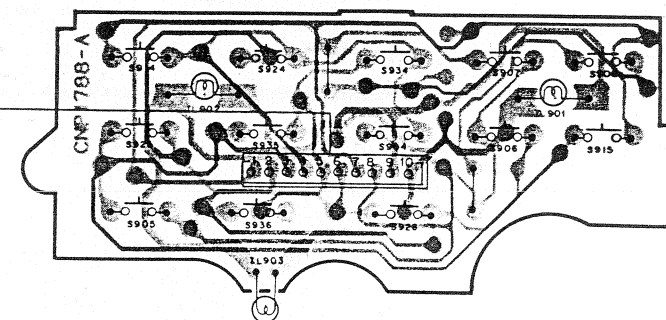
TUNER AMP UNIT

SWITCH P.C. BOARD






1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO	20
14	ANT	21
15		22
16		23
17		24
18		25
19		26

FRONT L UNIT



A
B
C
D
E
F

- Indicates a chip capacitor.
-  Indicates a chip resistor.
-  Indicates a chip diode.
-  Indicates a chip transistor.

TUNER AMF

TUNER AMP



0654,657,658	2SA1048
0251,252,658,659, 660,663,664,702,707	2SC2458
0703	2SC2498
0711,715	2SC3113
0669,653	2SD1919
0668,703,704,712	0TC144ES
0651,652	2SD1468S
0706	2SK330

D705	ISS135
D802	ERC05-10B
D702	HZS3R0EB2
D657	HZGR1CB2
D659	HZC5R6JB2
D658	HZS7R5EB2
D651	HZS9R1CB1
D565	HZS10EB1
D761	MA700

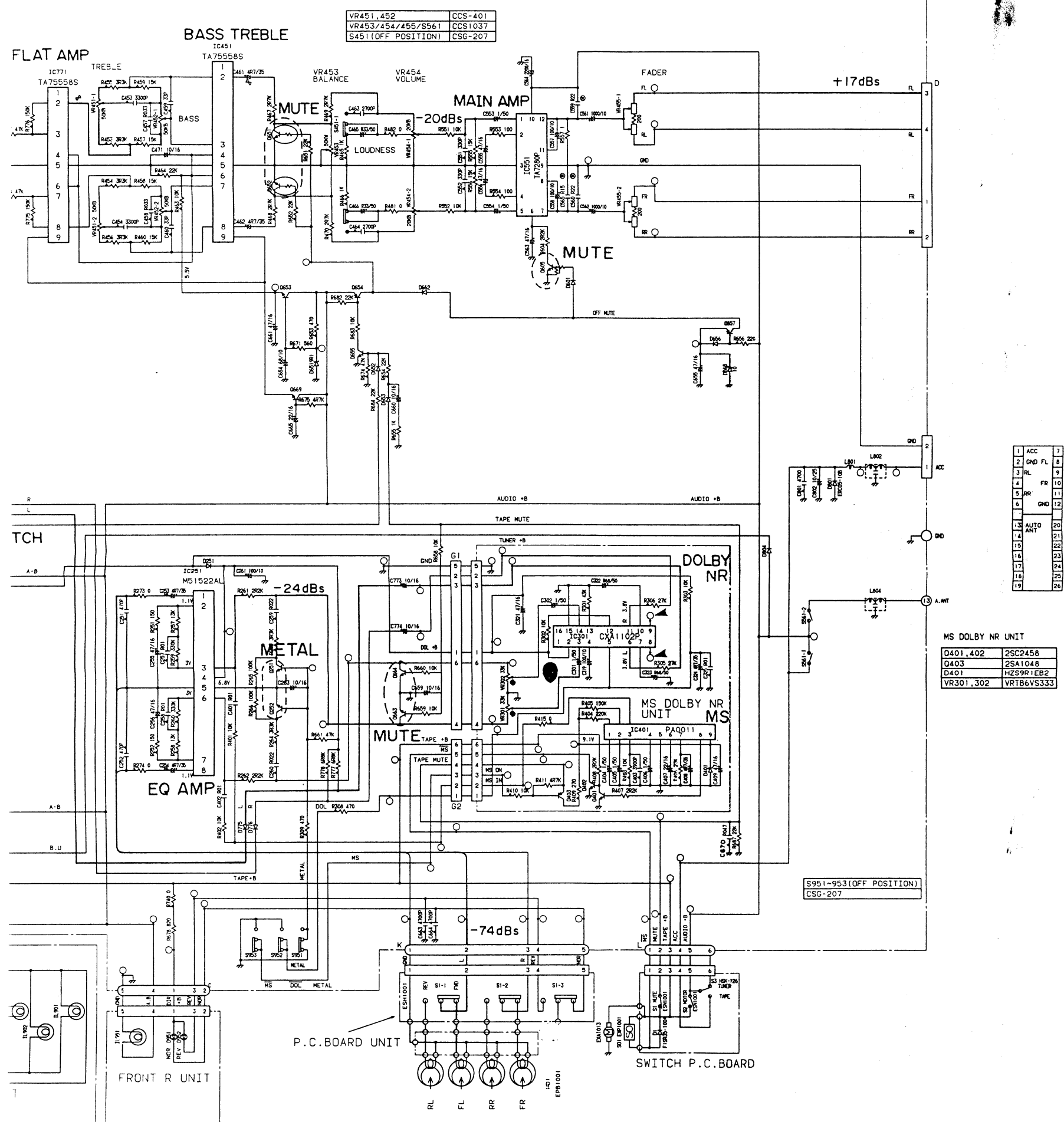
D601,653,714-717	IS1555
OTHER DIODE	ISS133

IL901~903	CEL1004
S904~908,914,915,924~926	CSG1021

D951.952	SLR-320DU3LM
1.951	CEL1004

TUNER AMP ASSY

TUNER AMP UNIT



Fig

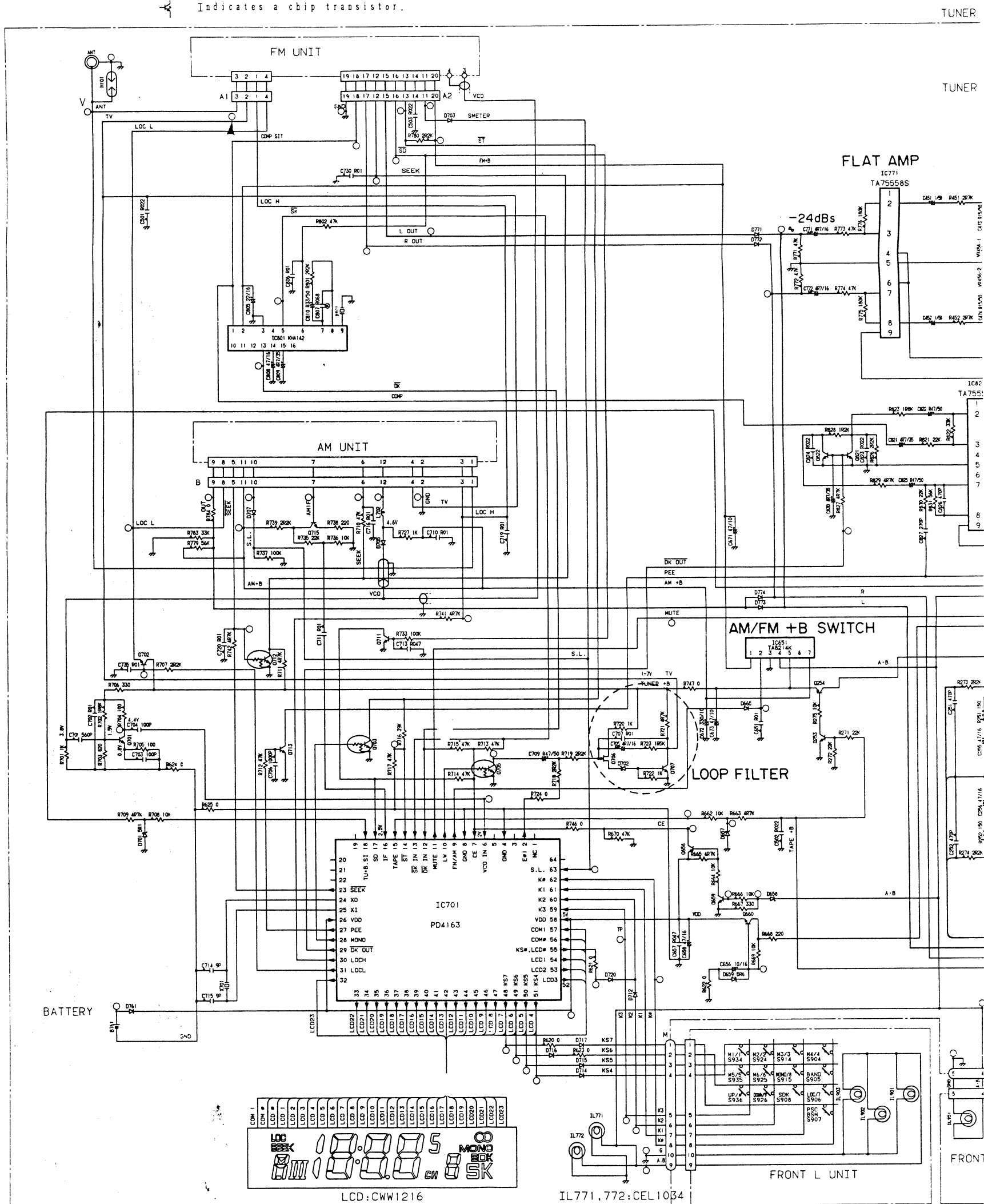
13. SCHEMATIC CIRCUIT DIAGRAM (KE-3060SDK)



NOTE:

Indicates a chip capacitor.
Indicates a chip resistor.
Indicates a chip diode.
Indicates a chip transistor.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022



TUNER AMP UNIT

C254, 654, 657, 658	2SA1048
C253, 655, 659, 660, 663, 664, 702, 707, 712, 821, 822, 823	2SC2458
C701	2SC2498
C711, 715	2SC3113
C609, 653	2CD1919
C605, 703, 705, 712	DTC144ES
C651, 652	2SD1468S
C706	2SK330

D665	DTC144TS
D705	1SS135
D801	ERC05-108
C701	MA7C3
D702	HZS3R0EB2
D657, 701	HZS5R1EB2
C659	HZS5R6JB2
D658	HZS7R5EB2
D651	HZS9R1EB1
C665	HZS10CB1

D601, 653, 714-717	1S1555
OTHER DIODE	1SS133

FRONT L UNIT

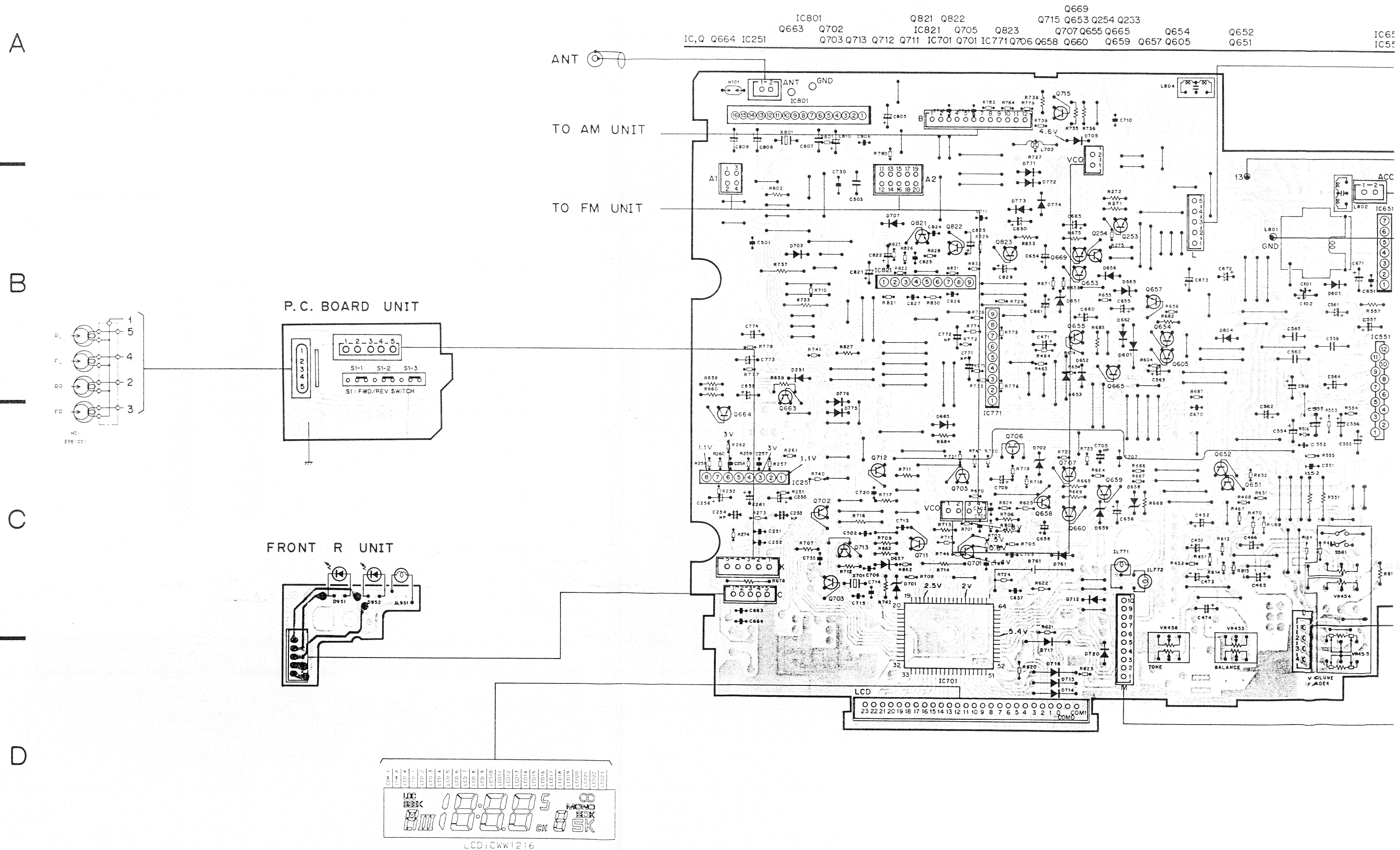
IL901-903	CEL1004
S904-908, 914, 915, 924-926, 934-936	CSG1021

FRONT R UNIT

D951, 952	SLR-3200J3LM
IL951	CEL1004

14. CONNECTION DIAGRAM (KE-3060SDK)

TUNER AMP UNIT



TUNER AMP UNIT

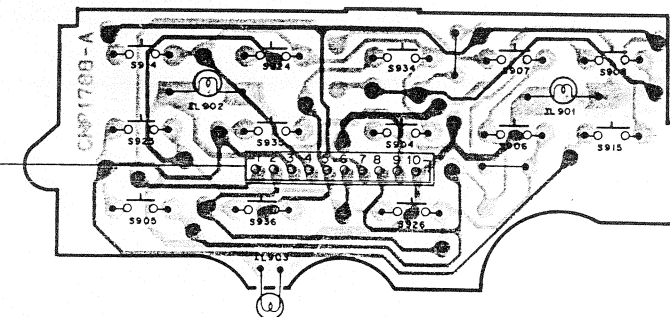
IC801 Q663 Q702 Q703 Q713 Q712 Q711 IC701 Q701 IC771 Q706 Q658 Q660 Q659 Q657 Q605
 Q821 Q822 IC821 Q705 Q823 Q707 Q655 Q665 Q654 Q652 Q651
 Q669 Q715 Q653 Q254 Q253 Q654 Q652 Q651
 IC651 IC551

SWITCH P.C. BOARD

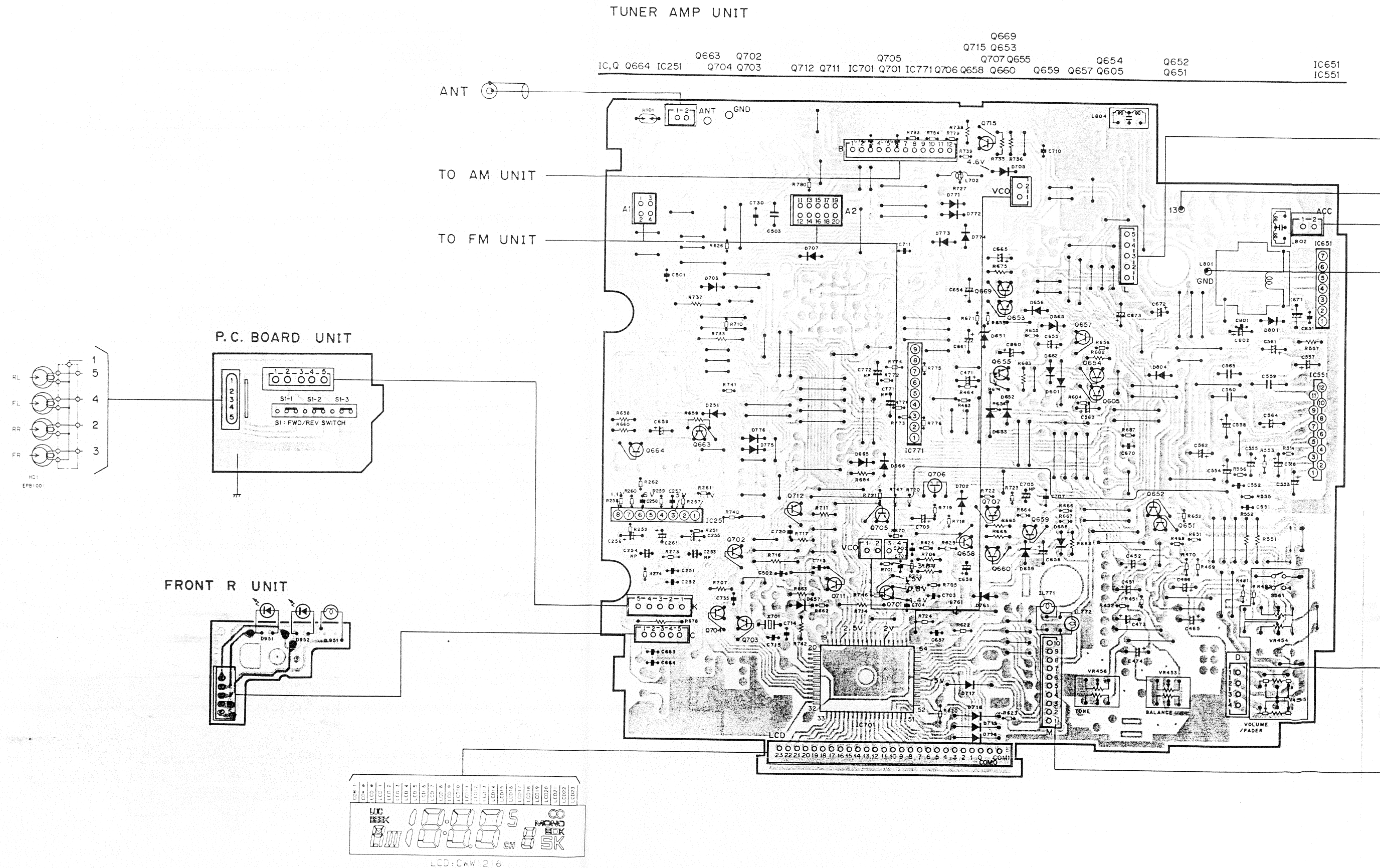
MOTOR UNIT

1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO	20
14	ANT	21
15		22
16		23
17		24
18		25
19		26

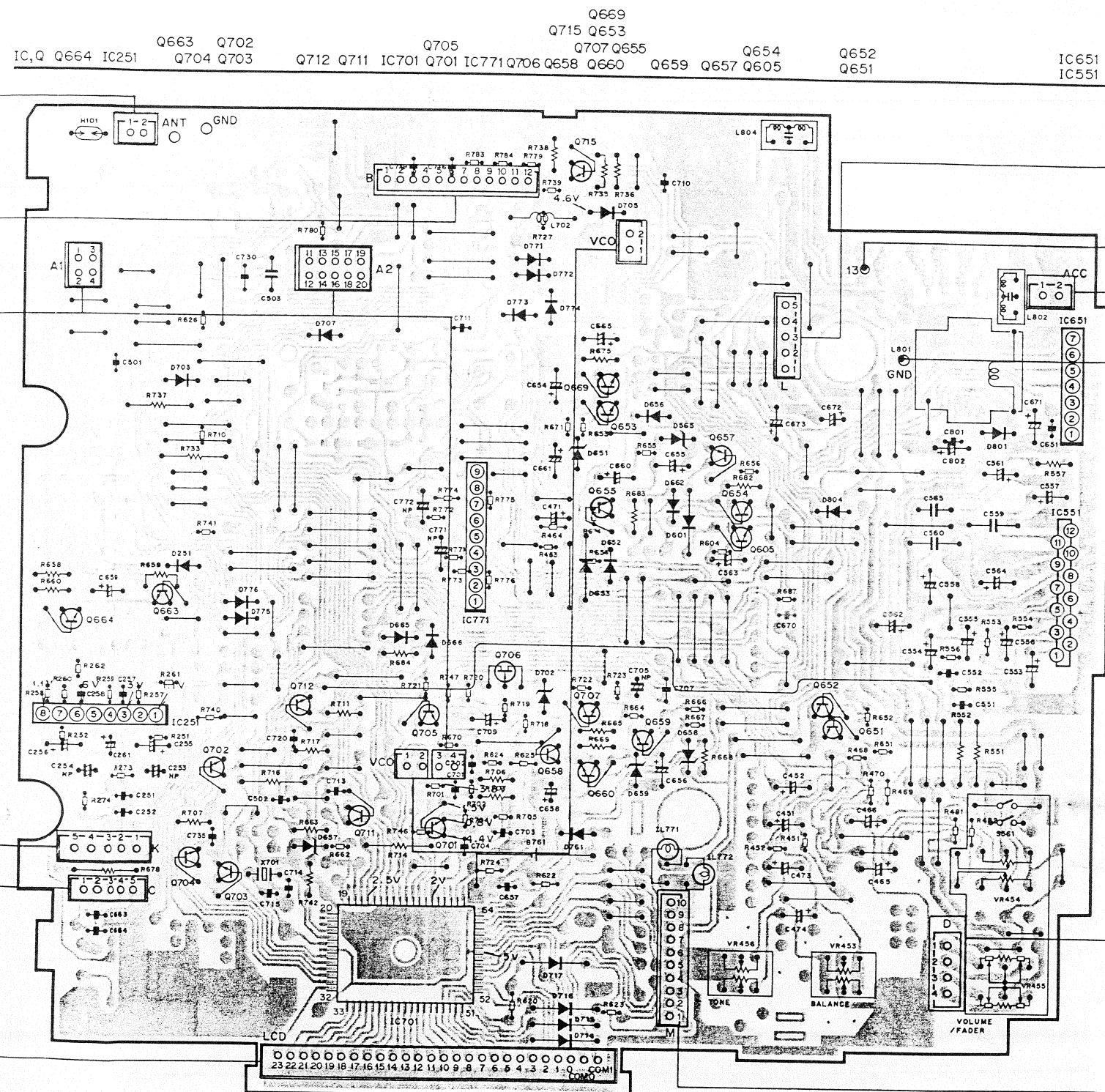
FRONT L UNIT



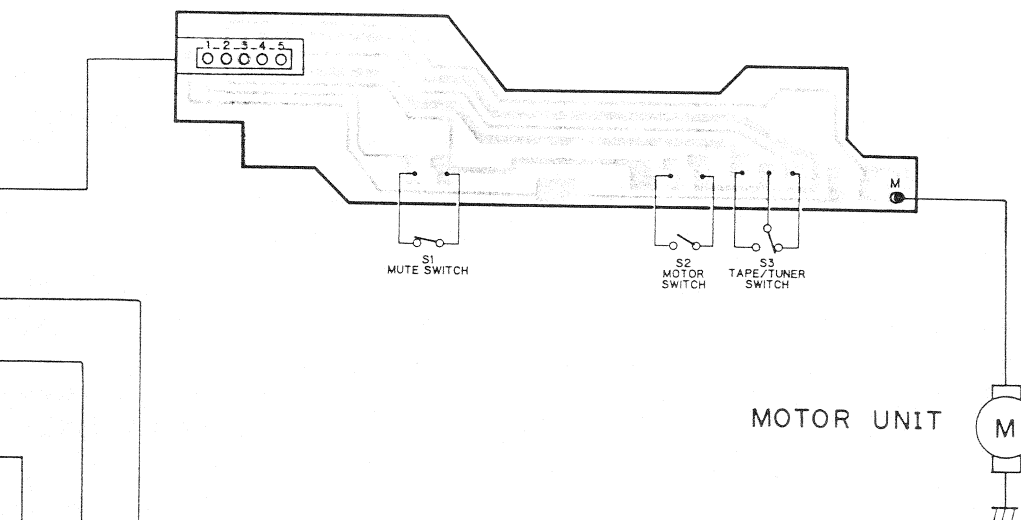
15. CONNECTION DIAGRAM (KE-3060, 3060B)



TUNER AMP UNIT

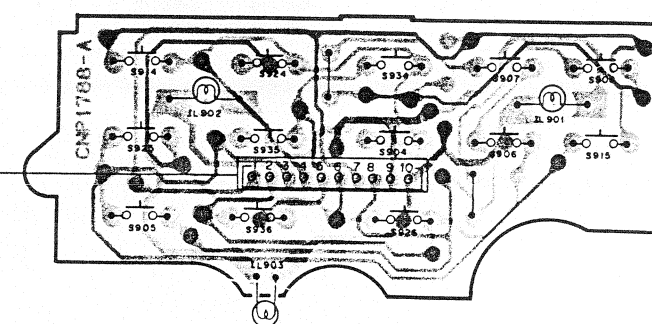


SWITCH P.C.BOARD

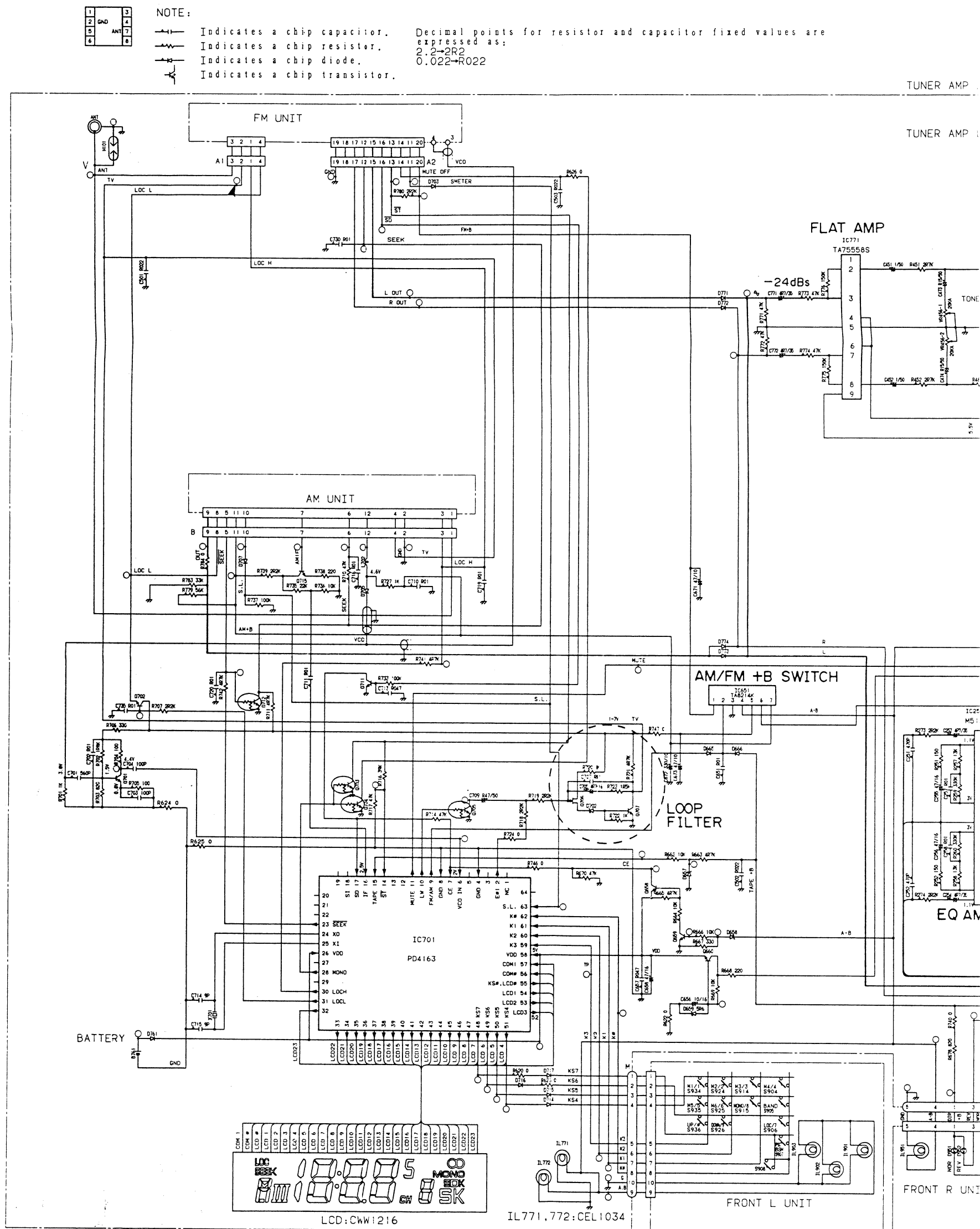


1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO	20
14	ANT	21
15		22
16		23
17		24
18		25
19		26

FRONT L UNIT



16. SCHEMATIC CIRCUIT DIAGRAM (KE-3060, 3060B)



TUNER AMP UNIT

C054, 657, 658	25A1048
C055, 659, 660, 663, 664, 702, 707	25C2458
C701	25C2478
C702	25C3113
C703, 665	25D919
C704, 705, 706, 712	25D1466S
C705, 662	25D1466S
C706	25D1466S

D705	1SS135
D801	ERC05-10B
D761	MA700
C702	25C2478
D657	25D919
D659	25D919
D658	25D1466S
D651	25D1466S
D655	25D1466S

D601, 653, 714-717	1SS135
OTHER DIODE	1SS133

FRONT L UNIT

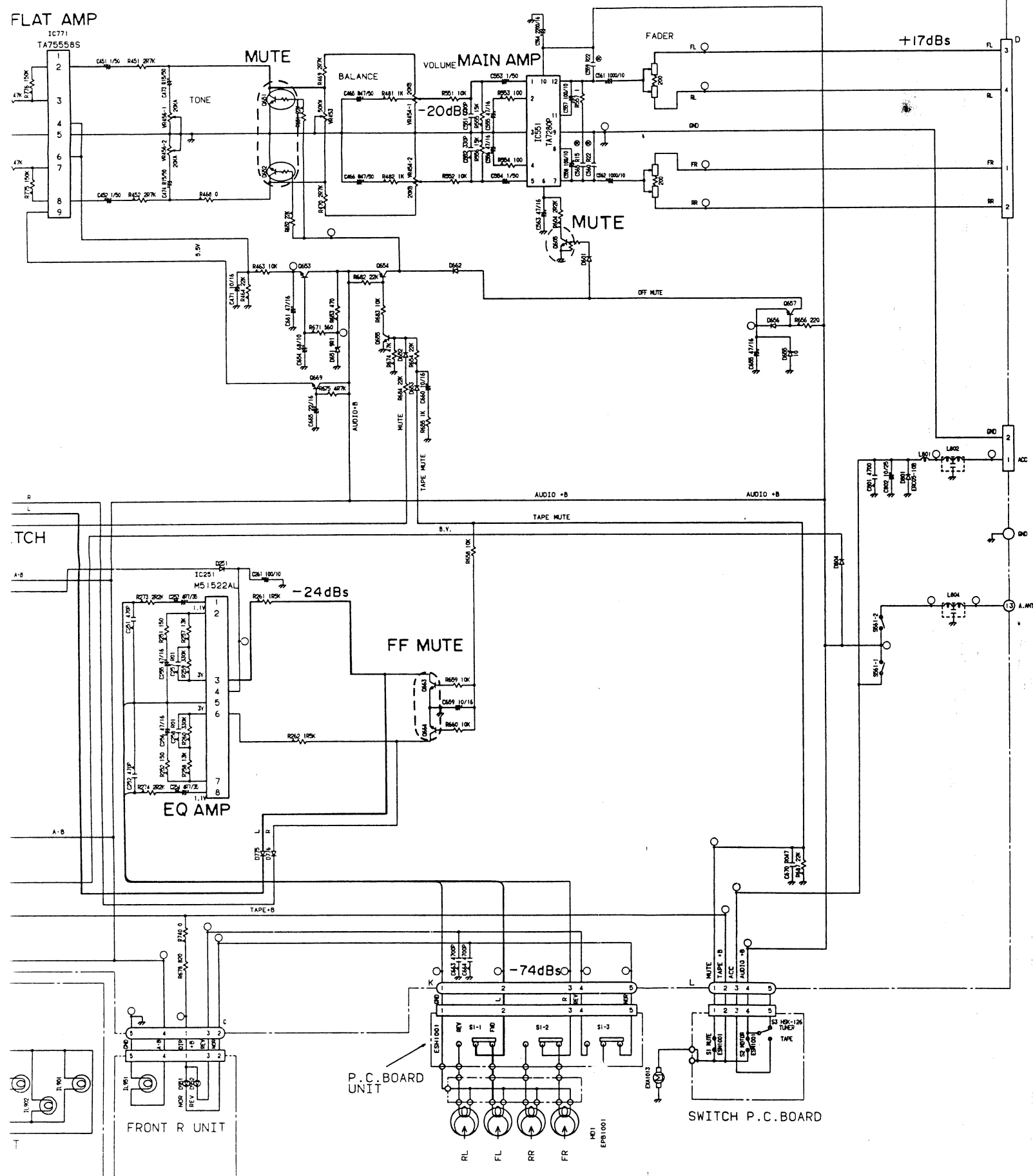
IL901-903	CEL1004
S904-906, 914, 915, 924-926	CSG1021

FRONT R UNIT

S907-909	S.P-3200-3-M
IL910-912	CEL1004

TUNER AMP UNIT

VR453	CCS-402
VR454/455/S561	CCS1109
VR456	CCS-374



1	ACC	7
2	GND FL	8
3	RL	9
4	FR	10
5	RR	11
6	GND	12
13	AUTO	20
14	ANT	21
15		22
16		23
17		24
18		25
19		26

17. SCHEMATIC CIRCUIT DIAGRAM (KE-3040)

A

B

C

D

E

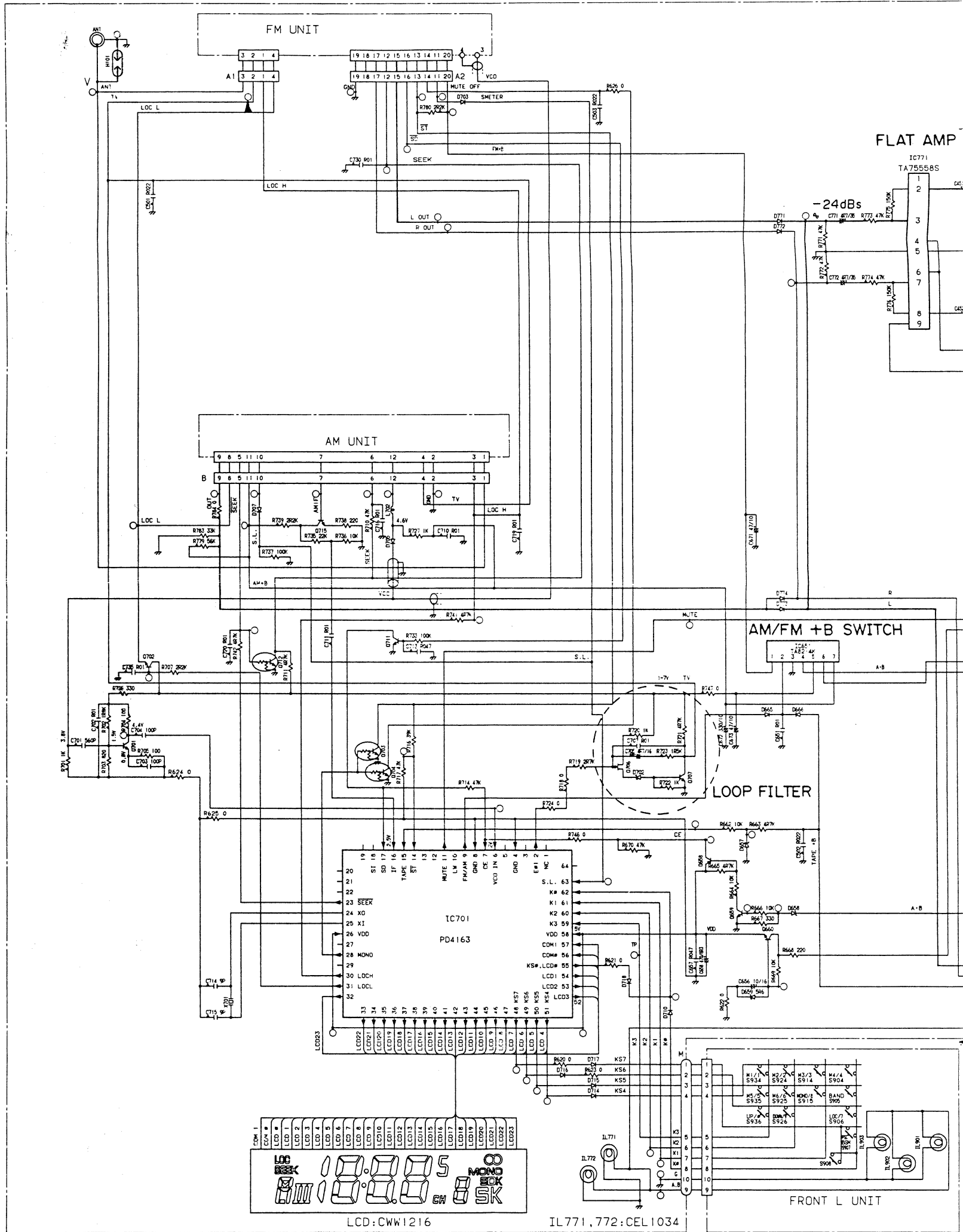
F



NOTE:

- Indicates a chip capacitor.
- Indicates a chip resistor.
- Indicates a chip diode.
- Indicates a chip transistor.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022



TUNER AMP UNIT

Q654, 657, 658	2SA1048
Q655, 659,	2SC2458
660, 663, 664, 702, 707	
C701	2SC2498
C711, 715	2SC3113
Q669, 653	2SC1919
Q668, 703, 704, 712	2SC144CS
Q651, 652	2SC14685
U706	2SC4330

D705	1SS135
D801, 802	ERC05-10B
U702	HZS3R0EB2
Q657	HZCER1CB2
Q659	HZSEF6UB2
Q656	HZSR5EB2
Q65	HZSRACB1
Q655	HZS1CEB1

D601, 653, 714~717	1S1555
OTHER DIODE	1SS133

FRONT L UNIT

IL901-903	CEL1004
S904-908, 914, 915, 924-926	CSG1021
934-936	

FRONT R UNIT

D951, 952	SLR-3200J3-W
1.95	CEL1034

ues are

TUNER AMP ASSY

TUNER AMP UNIT

FLAT AMP

IC771
TA7555BS

VR453	CCS-402
VR454/455/5561	CCS1109
VR456	CCS-374

MAIN AMP

FADER

+17dBs

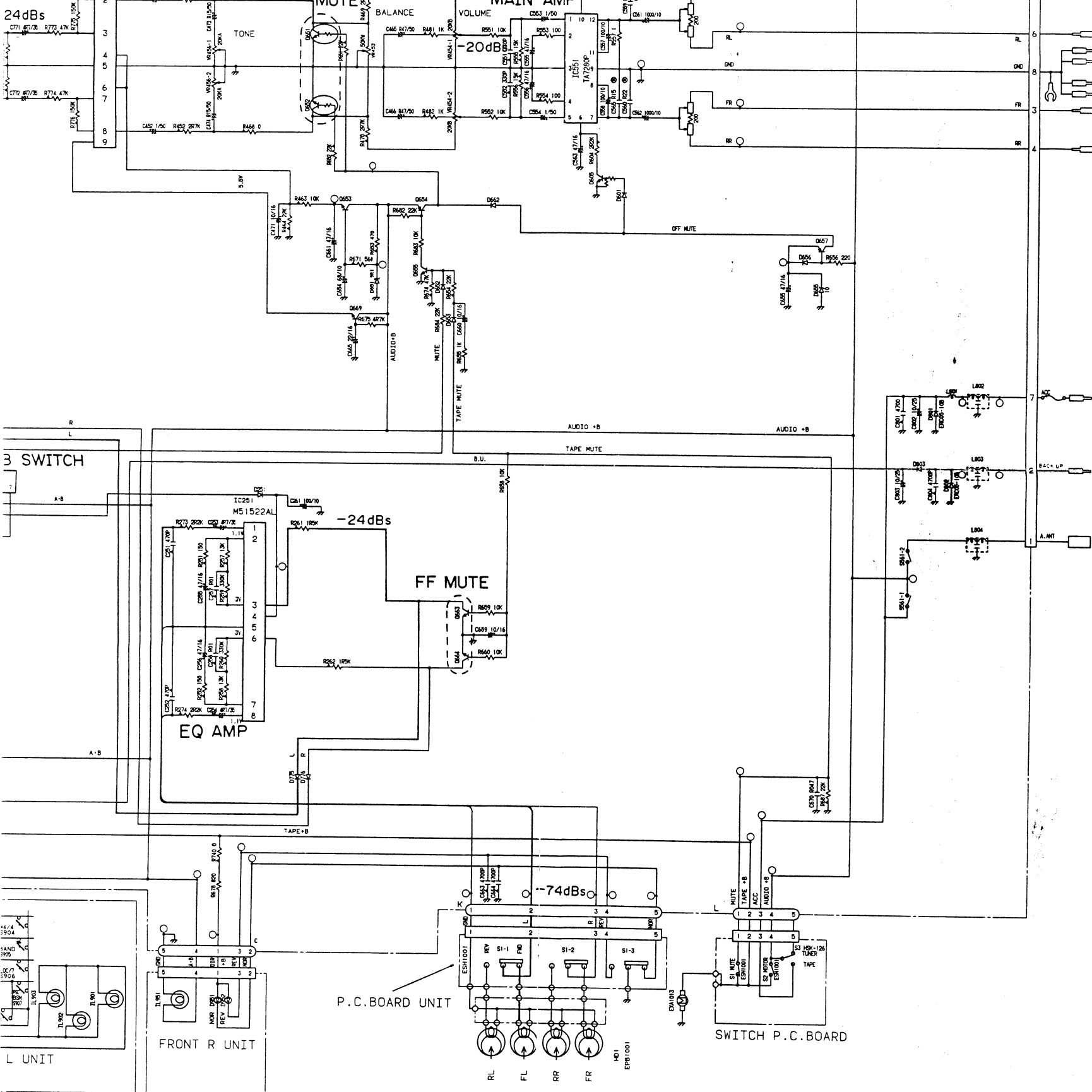


Fig. 19

(



19. CIRCUIT DIAGRAM AND P.C. BOARDS PATTERN

19.1 FM UNIT (KE-3090SDK, 3090, 3090B, 3060SDK, 3060, 3060B)

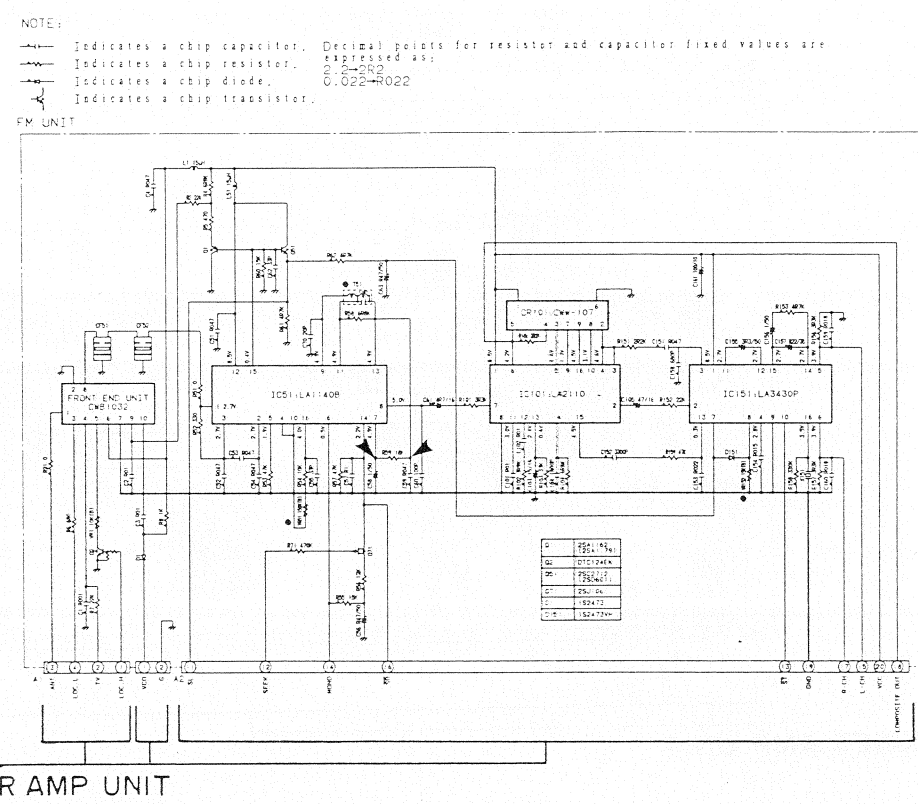


Fig. 21

19.2 FM UNIT (KE-3070QR)

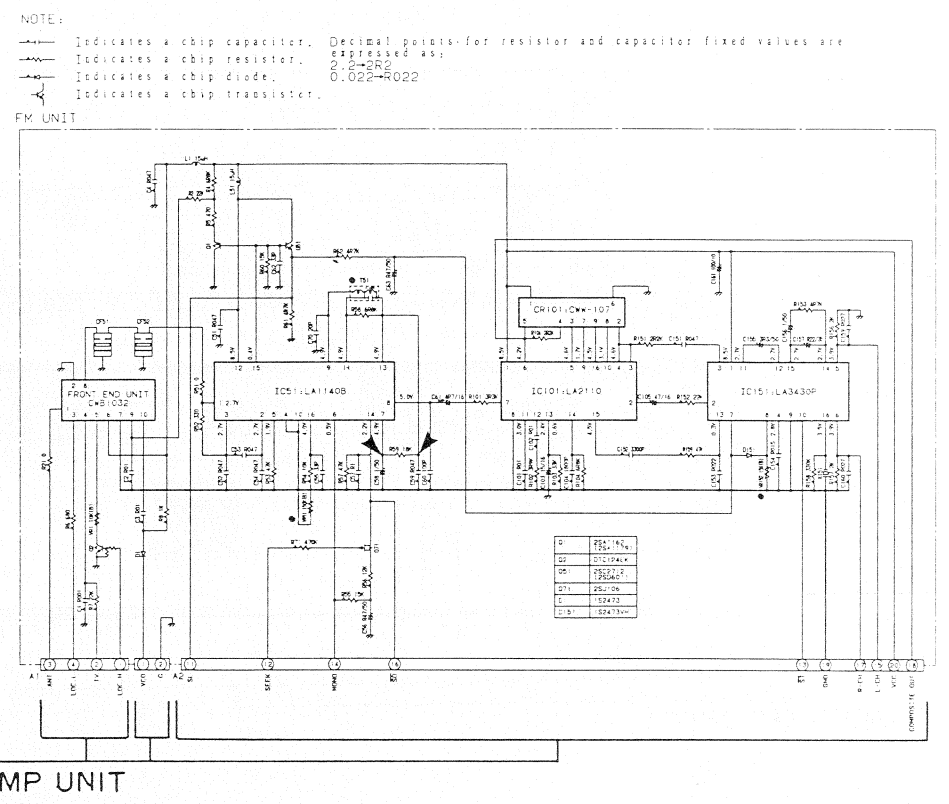


Fig. 23

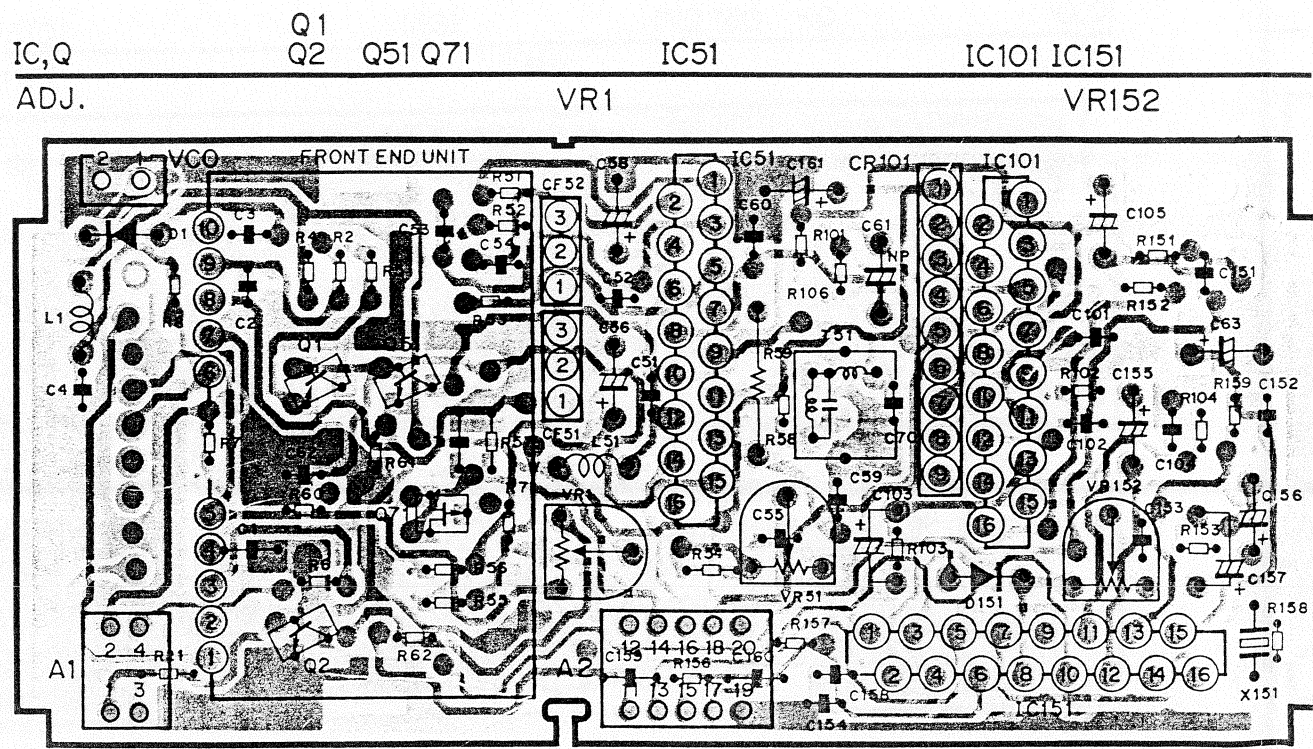


Fig. 22

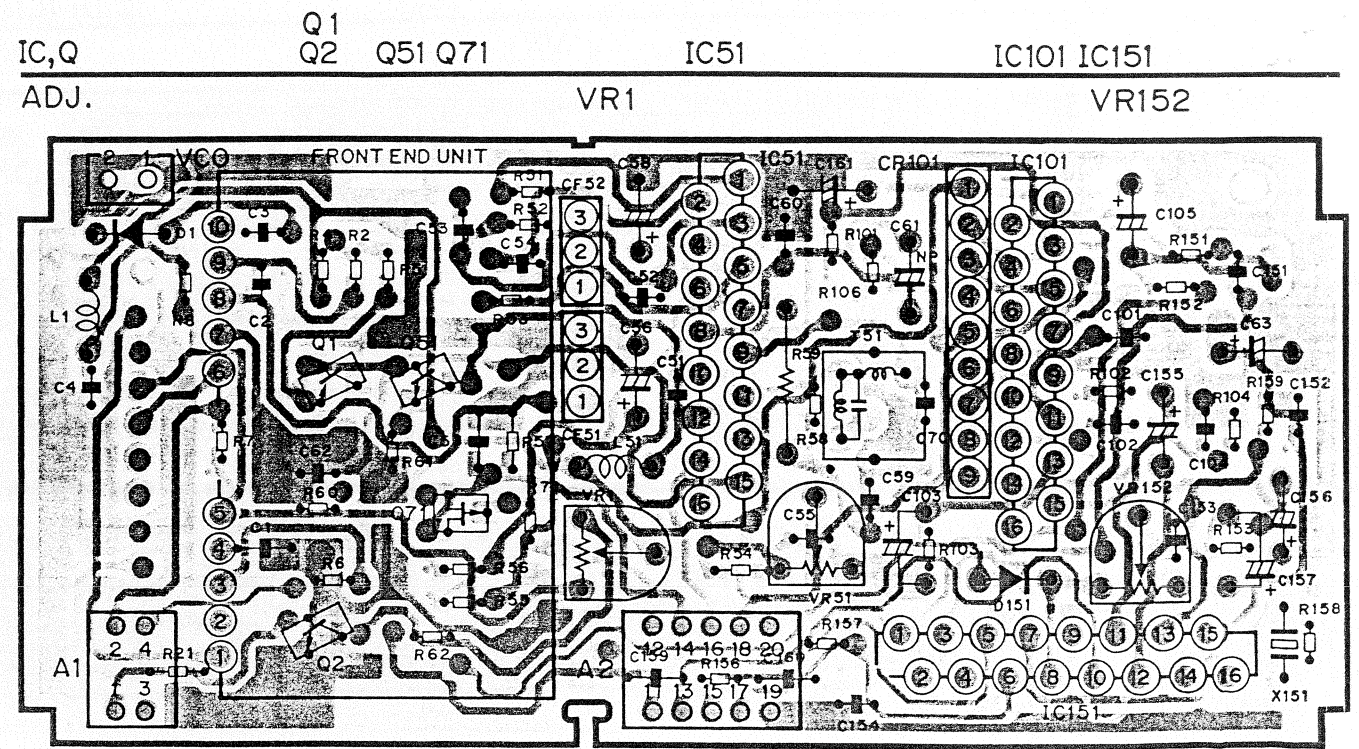


Fig. 24

19.2 FM UNIT (KE-3070QR)

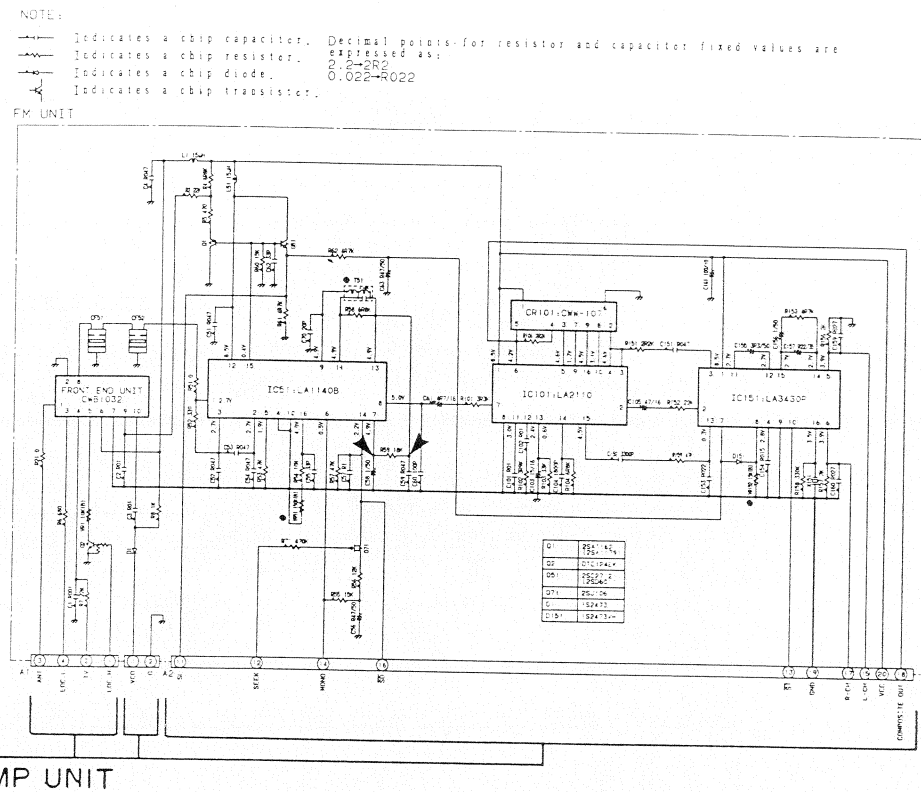


Fig. 23

19.3 FM UNIT (KE-3040)

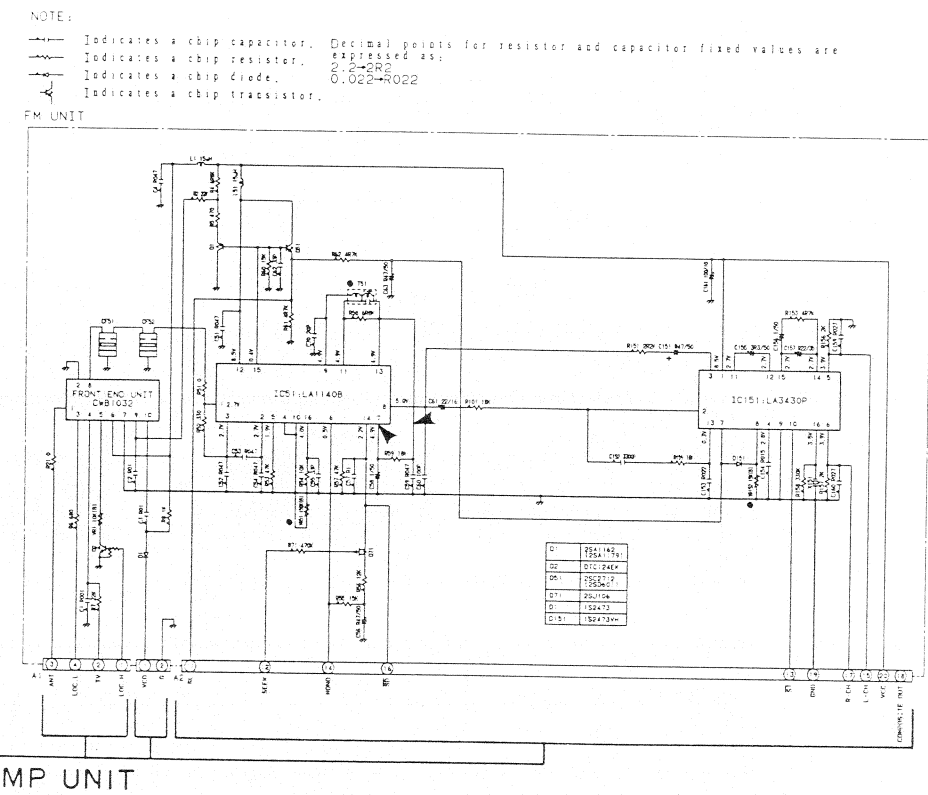


Fig. 25

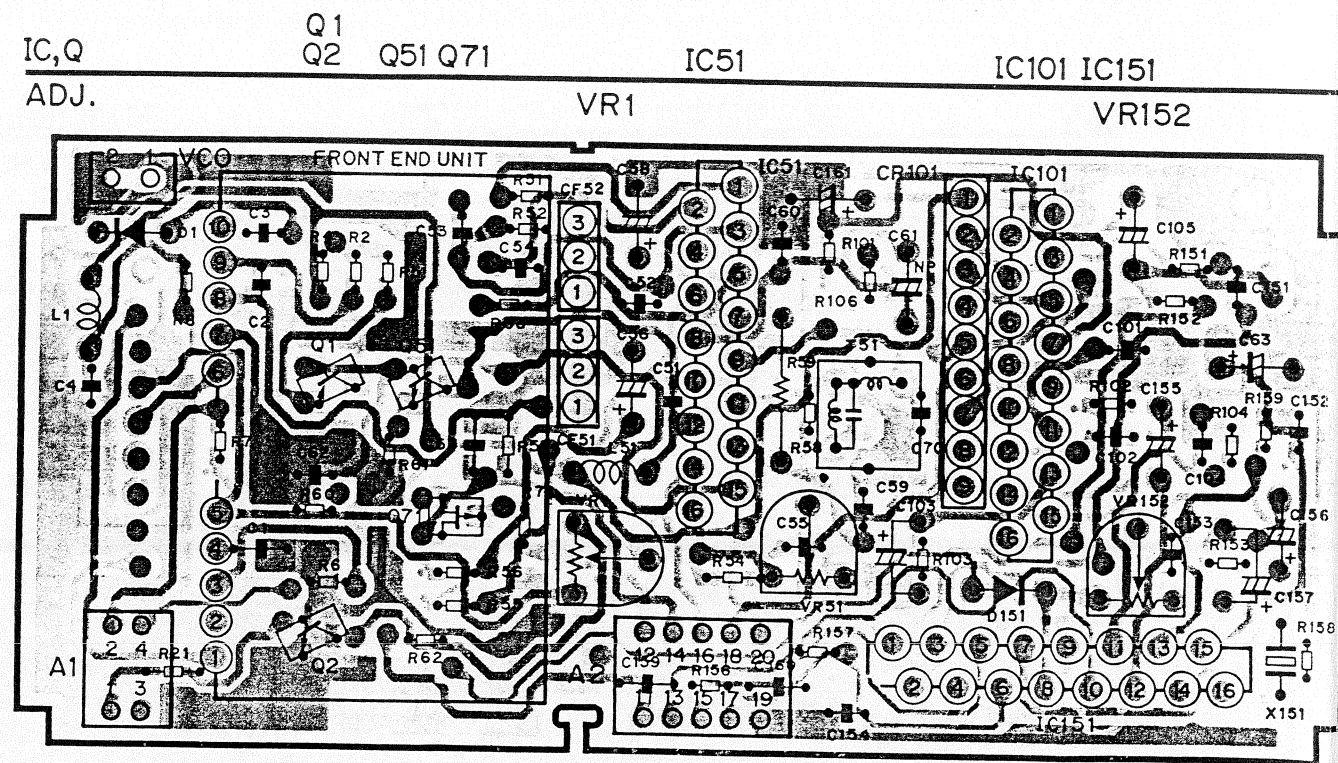


Fig. 24

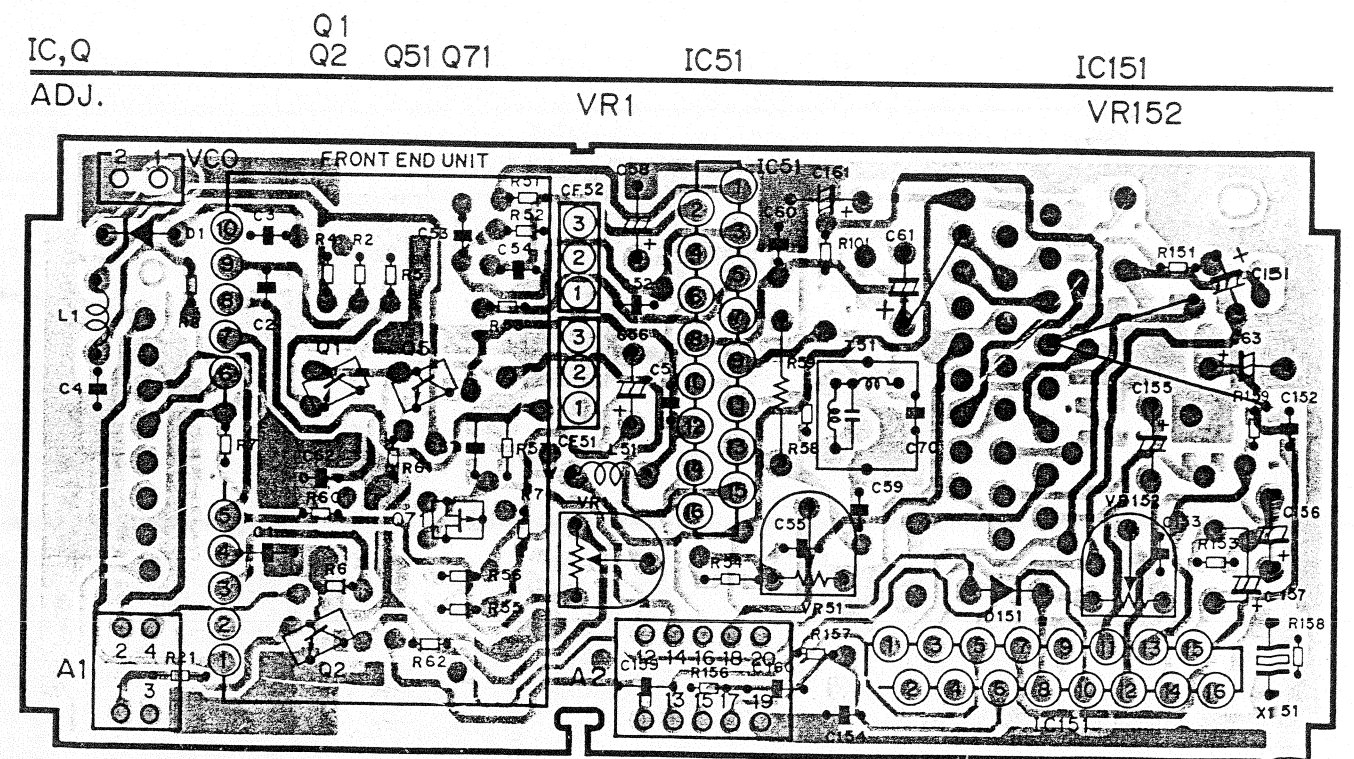


Fig. 26

19.4 AM UNIT

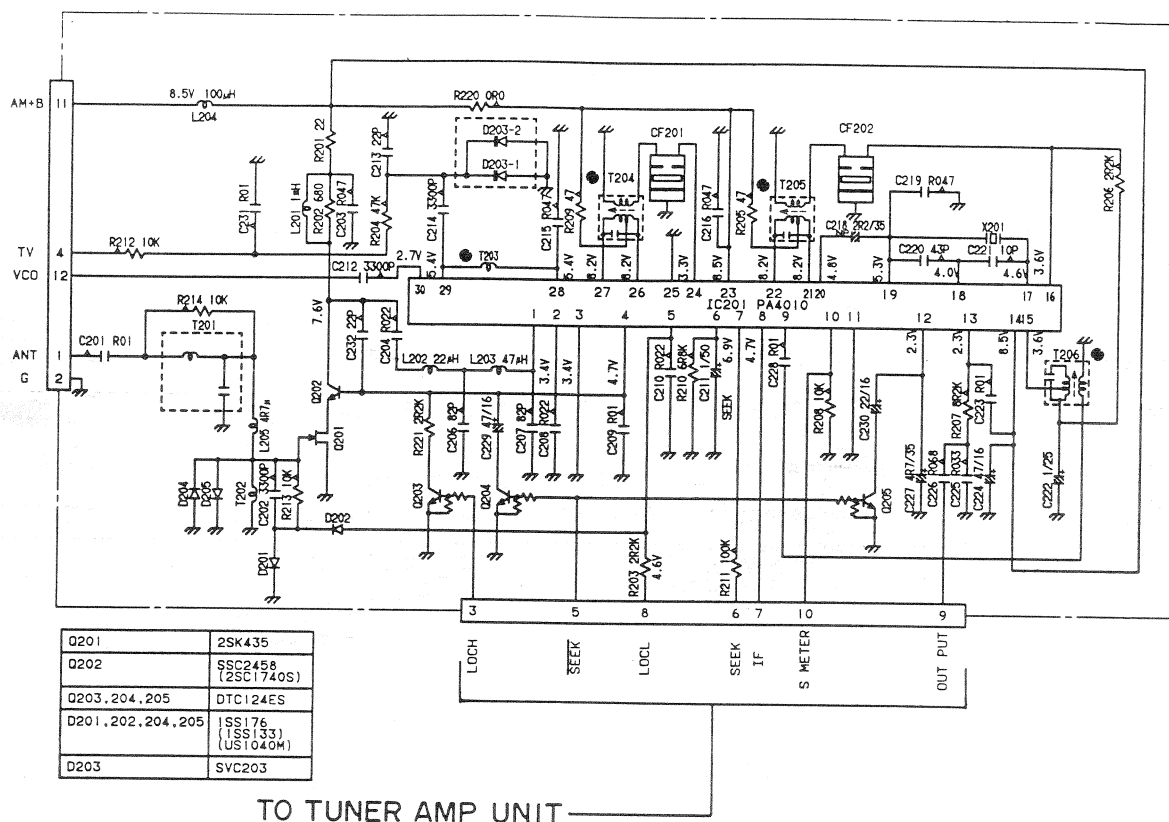


Fig. 27

IC, Q		IC201		Q205		Q202	
ADJ		T204 T203		T206		Q204 Q203 Q201	
		T205					

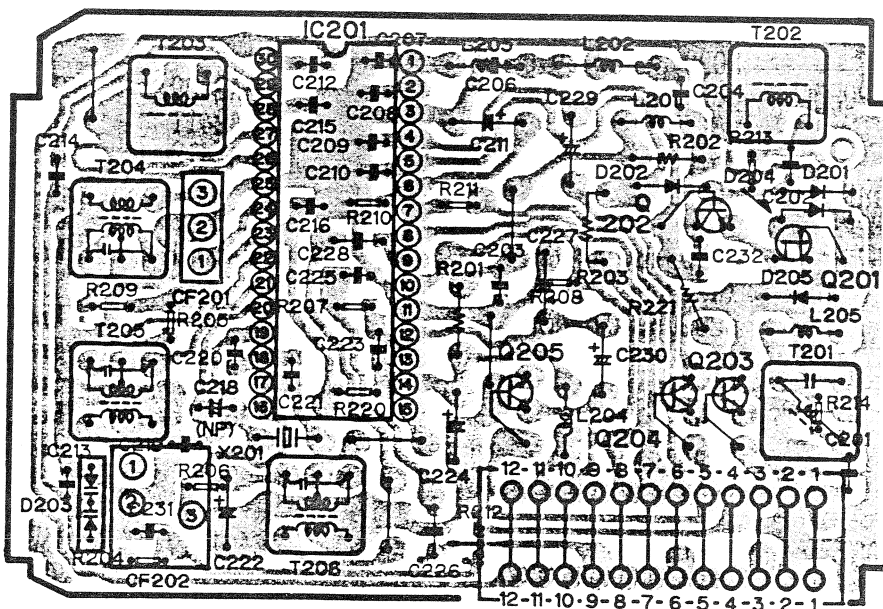


Fig. 28

20. EXPLODED VIEW

• Parts List

NOTE:

- For your Parts Stock Control, the fast moving items are indicated with the marks ★ ★ and ★.
- ★ ★: GENERALLY MOVES FASTER THAN ★.
- This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts whose parts numbers are omitted are subject to being not supplied.
- Parts marked by "◎" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
	1		Spacer	★★	28	CCS-401	Volume (KE-3090SDK, 3090, 3090B, 3070QR)
★★	2	CEL1004	Lamp				
	3	BPZ20P060FMC	Screw	★★		CCS-402	Volume (KE-3060SDK, 3060, 3060B, 3040)
	4		Plug				Clamper
	5		Lens		29		Holder
					30		
	6	CNV-724	Bush				
	7		Cushion		31	CBN-016	Nut
★	8	CAC1727	Button (KE-3090SDK, 3060SDK)		32	CBA-066	Nut
★	9	CAC1721	Button (1)		33	CBH-875	Spring
					34	CAT1141	Door (KE-3090SDK)
★	10	CAC1722	Button (2)			CAT1141	Door (KE-3090, 3090B)
★	11	CAC1723	Button (3)			(CAT1158)	
★	12	CAC1724	Button (4)			CAT1143	Door (KE-3070QR)
★	13	CAC1725	Button (5)			CAT1142	Door (KE-3060SDK, 3060, 3060B)
★	14	CAC1726	Button (6)			CAT1149	Door (KE-3040)
★	15	CAC1733	Button (TUNE)		35	CXA2407	Grille Unit (KE-3090SDK)
★	16	CAC1734	Button (BAND)			CXA2408	Grille Unit
★	17	CAC1713	Button (LOUD KE-3090SDK, 3090, 3090B, 3070QR)				(KE-3090, 3090B)
	18	BMZ30P080FMC	Screw			CXA2409	Grille Unit (KE-3070QR)
						CXA2411	Grille Unit (KE-3060SDK)
	19		Holder			CXA2412	Grille Unit
★★	20	TA8214K	IC				(KE-3060, 3060B)
★★	21	TA7280P	IC			CXA2413	Grille Unit (KE-3040)
◎	22	CWM1672	MS Dolby NR Unit (KE-3090SDK, 3090, 3090B, 3070QR)	★	36	CAA1051	Knob (PAD)
				★	37	CAA1050	Knob (VOLUME)
				★	38	CAA1052	Knob
	23		Plug		39	CBH-727	Spring
	24		Plug	★	40	CAC1716	Button (DIRECTION)
	25		Connector				(KE-3090SDK, 3090, 3090B, 3070QR)
	26		Connector (KE-3040)				
★★	27	CCS1037	Volume (KE-3090SDK, 3090, 3090B, 3070QR)	★		CAC1717	Button (DIRECTION) (KE-3060SDK, 3060, 3060B, 3040)
★★		CCS1109	Volume (KE-3060SDK, 3060, 3060B, 3040)		41		Case
					42		Insulator

• Exploded view

KE-3090B, 3070QR, 3060B

BOX
CNB1198(KE-3090B, 3070QR)
CNB1152(KE-3060B)

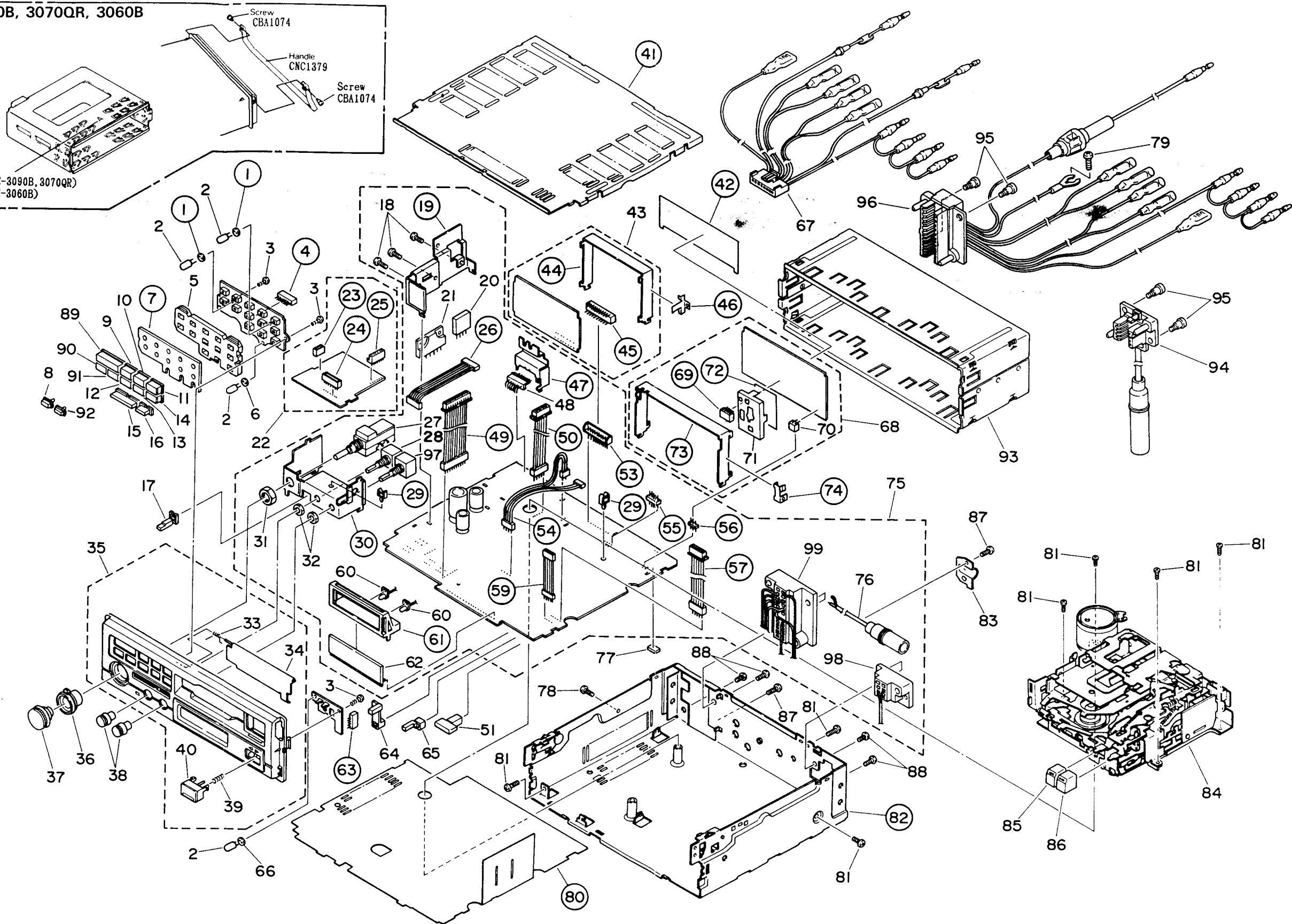


Fig. 29

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
●	43	CWA1009	AM Unit	●		CWM1624	Tuner Amp Unit
	44		Holder				(KE-3060, 3060B)
	45		Connector	●		CWM1626	Tuner Amp Unit
	46		Spacer				(KE-3040)
	47		Holder (KE-3040)	76	CDH1066		Antenna Cable (KE-3040)
	48	CKS-465	Plug (KE-3040)	77	CNN-412		Cushion
	49		Connector	78	BMZ30P060FMC		Screw
	50		Connector (KE-3090SDK, 3090, 3090B, 3070QR)	79	BMZ40P060FMC		Screw (KE-3090B, 3070QR, 3060B)
			Connector (KE-3060SDK, 3060, 3060B, 3040)	80			Insulator
★	51	CAC1718	Button (KE-3090SDK, 3090, 3090B, 3070QR)	81	BMZ26P040FMC		Screw
	52	.....		82			Chassis Unit
	53		Plug	83	CNF-387		Holder (KE-3040)
	54		Connector	84	EXK1020		Cassette Mechanism Unit (KE-3090SDK, 3090, 3090B, 3070QR)
	55		Plug	●		EXK1140	Cassette Mechanism Unit (KE-3060SDK, 3060, 3060B, 3040)
	56		Plug				
	57		Connector				
	58	.....		★	85	CAC1715	Button
	59		Connector	★	86	CAC1714	Button
★★	60	CEL1034	Lamp		87	BMZ30P060FMC	Screw (KE-3040)
	61		Holder		88	BMZ30P060FMC	Screw (KE-3090SDK, 3090, 3090B, 3070QR, 3060SDK, 3060, 3060B)
	62	CWW1216	LCD				
	63		Plug	★	89	CAC1731	Button (KE-3090, 3090B, 3070QR, 3060, 3060B, 3040)
★	64	CAC1719	Button (NR)				
★	65	CAC1720	Button (MTL)	★	90	CAC1729	Button (MONO)
	66	CNW-855	Bush	★	91	CAC1730	Button (LOC. S)
●	67	CDE2114	Cord Assy (KE-3040)	★	92	CAC1728	Button (KE-3090SDK, 3060SDK)
	68	CWE1103	FM Unit (KE-3090SDK, 3090, 3090B, 3060SDK, 3060, 3060B)		93	CNC1484	Holder (KE-3090SDK, 3090, 3060SDK, 3060, 3040)
●		CWE1107	FM Unit (KE-3070QR)				
●		CWE1115	FM Unit (KE-3040)		94	CDE1456	Cord Assy (KE-3090SDK, 3090, 3090B, 3070QR, 3060SDK, 3060, 3060B)
	69		Connector		95	CBA1073	Screw (KE-3090B, 3070QR, 3060B)
	70		Connector		96	CDE2053	Cord Assy (KE-3090SDK, 3090, 3090B, 3070QR, 3060SDK, 3060, 3060B)
	71	CWB1032	Front End Unit				
	72		Insulator				
	73		Holder				
	74		Spacer				
●	75	CWM1616	Tuner Amp Unit (KE-3090SDK)	★★	97	CCS-401	Volume (KE-3090SDK, 3090, 3090B, 3070QR)
●		CWM1617	Tuner Amp Unit (KE-3090, 3090B)	★★		CCS-374	Volume (KE-3060SDK, 3060, 3060B, 3040)
●		CWM1620	Tuner Amp Unit (KE-3070QR)		98	CDE2072	Cord Assy (KE-3090SDK, 3090, 3090B, 3070QR, 3060SDK, 3060, 3060B)
●		CWM1622	Tuner Amp Unit (KE-3060SDK)		99	CDE2052	Cord Assy (KE-3090SDK, 3090, 3090B, 3070QR, 3060SDK, 3060, 3060B)

• Cassette Mechanism Unit

Mark	No.	Part No.	Description
	92	*	
	93	ENV1043	Gear
	94	ELA1032	Collar
	95	HBA-212	Screw
	96	EBH1007	Spring
	97	EBH1006	Spring
	98	EBH1058	Spring
	99	EBF1005	Washer
	100		Arm Unit
	101	ENV1018	Gear
	102	ENV1017	Gear
	103	EBH1022	Spring
	104	EXA1005	Arm Unit
	105		Plug
	106	EBA1010	Screw
	107	BMZ20P070PMC	Screw
	108		Bracket
	109	EBH1016	Spring
	110		Lever Unit
	111	EBH1048	Spring
	112	EBH1005	Spring
	113		Lever
	114		Lever
	115		Arm
	116	WH23FMC	Washer

*)Number 92 is part of the chassis unit and cannot be removed.

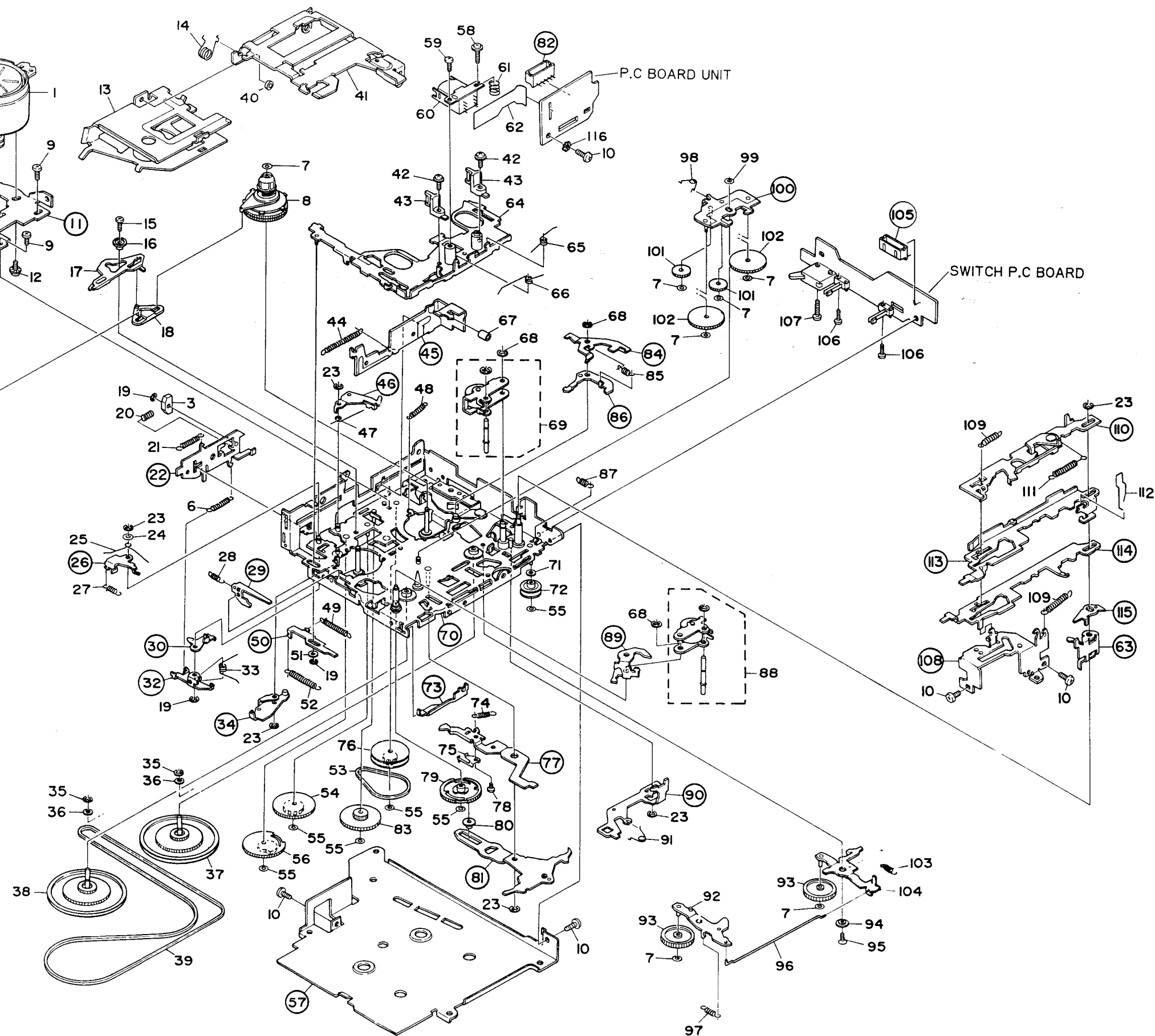


Fig. 30

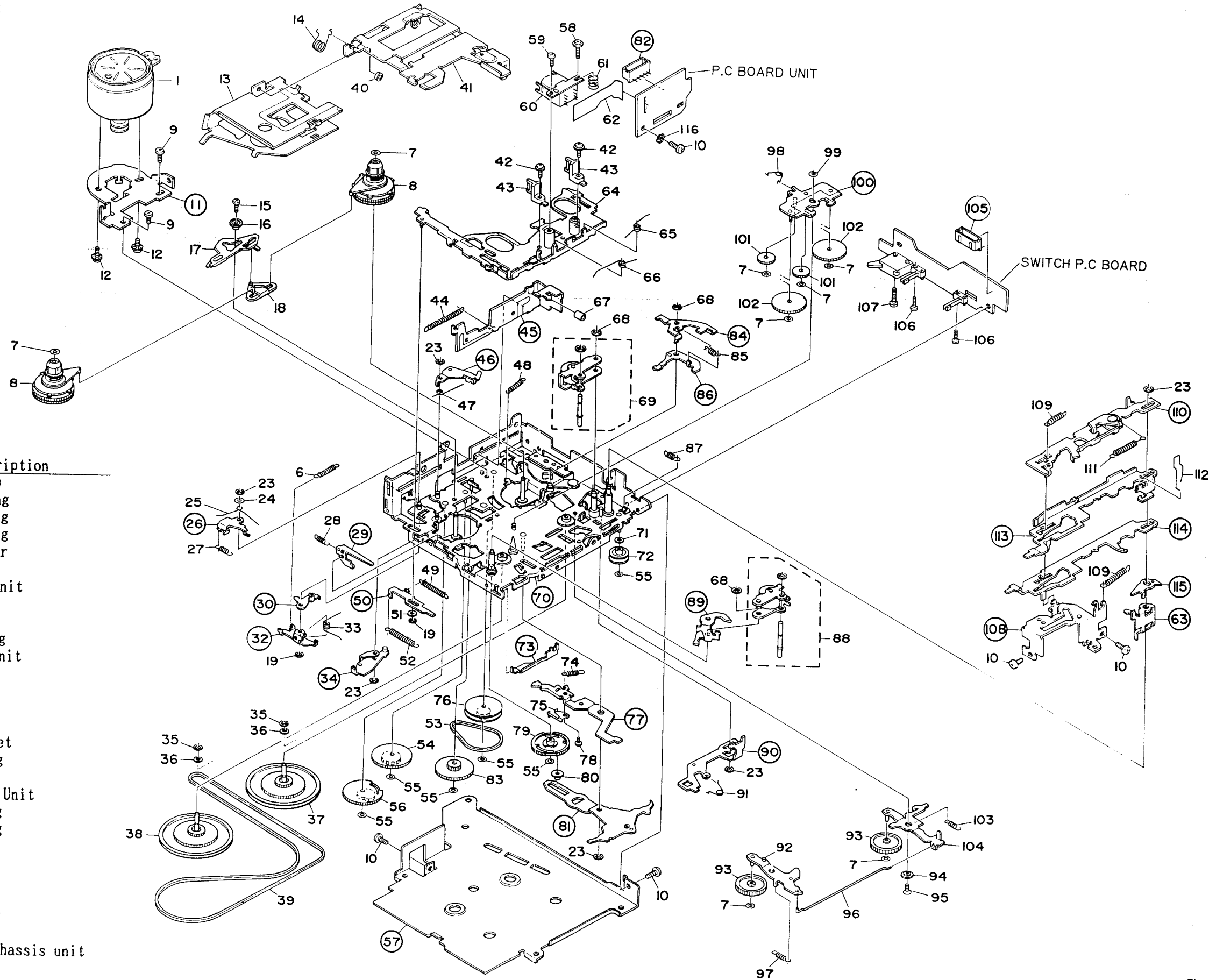
21. CASSETTE MECHANISM UNIT

(KE-3090SDK, 3090, 3090B, 3070QR)

• Parts List

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
★★	1	EXA1013	Motor Unit		47	EBH1040	Spring
	2	EBA1008	Screw		48	EBH1041	Spring
★	3	EXP1001	Solenoid		49	EBH1021	Spring
4,5	.....				50		Lever
	6	EBH1056	Spring		51	EBE1001	Washer
	7	CBF-166	Washer		52	EBH1009	Spring
★★	8	EXA1012	Reel Unit	★★	53	ENT1006	Belt
	9	BMZ23P030FMC	Screw		54	ENV1034	Gear
	10	BSZ23P040FMC	Screw		55	CBF-135	Washer
	11		Bracket		56	ENV1037	Gear
	12	PMS26P025FUC	Screw		57		Cover
	13	ENC1013	Cassette Holder		58	EBA1013	Screw
	14	EBH1019	Spring		59	BMZ20P050FMC	Screw
	15	EBA1009	Screw	★★	60	EPB1001	Head
	16	ELA1042	Collar		61	EBH1065	Spring
	17	ENV1032	Arm		62	ENP1003	P.C. Board
	18	ENV1031	Arm		63		Arm
	19	YE12FUC	Washer		64	EXA1004	Head Base Unit
	20	EBH1038	Spring		65	EBH1004	Spring
	21	EBH1012	Spring		66	EBH1003	Spring
	22		Lever Unit		67	CNV1667	Cushion
	23	YE15FUC	Washer		68	YE20FUC	Washer
	24	CBF-165	Washer	★★	69	EXA1002	Roller Unit
	25	EBH1049	Spring		70		Chassis Unit
	26		Arm		71	EBF1004	Washer
	27	EBH1060	Spring		72	ENV1009	Pulley
	28	EBH1066	Spring		73		Lever
	29		Arm		74	EBH1025	Spring
	30		Arm		75	EBL1001	Spring
	31	.....			76	ENV1010	Pulley
	32		Arm		77		Arm
	33	EBH1008	Spring		78	HBA-147	Screw
	34		Arm Unit		79	ENV1035	Gear
	35	CBG1001	Washer		80	ELA1018	Collar
	36	HBF-179	Washer		81		Arm
	37	ENV1029	Flywheel (N)		82		Plug
	38	ENV1030	Flywheel (R)		83	ENV1011	Gear
★★	39	ENT1003	Belt		84		Arm
	40	ELA1051	Roller		85	EBH1024	Spring
	41	EXA1014	Cassette Frame Unit		86		Ratchet
	42	PMS20P040FMC	Screw		87	EBH1018	Spring
	43	ENV1016	Tape Guide	★★	88	EXA1003	Roller Unit
	44	EBH1047	Spring		89		Arm
	45		Lever		90		Lever
	46		Arm		91	EBH1013	Spring

Cassette Mechanism Unit



Mark No.	Part No.	Description
95	HBA-212	Screw
96	EBH1007	Spring
97	EBH1006	Spring
98	EBH1058	Spring
99	EBF1005	Washer
100		Arm Unit
101	ENV1018	Gear
102	ENV1017	Gear
103	EBH1022	Spring
104	EXA1005	Arm Unit
105		Plug
106	EBA1010	Screw
107	BMZ20P070FMC	Screw
108		Bracket
109	EBH1016	Spring
110		Lever Unit
111	EBH1048	Spring
112	EBH1005	Spring
113		Lever
114		Lever
115		Arm
116	WH23FMC	Washer

*)Number 92 is part of the chassis unit and cannot be removed.

Fig. 31

22. CASSETTE MECHANISM UNIT

(KE-3060SDK, 3060, 3060B, 3040)

• Parts List

Mark No.	Part No.	Description	Mark No.	Part No.	Description
★★ 1	EXA1013	Motor Unit	50		Lever
2,3	.....		51	EBE1001	Washer
4,5	.....		52	EBH1009	Spring
6	EBH1056	Spring	★★ 53	ENT1006	Belt
7	CBF-166	Washer	54	ENV1034	Gear
★★ 8	EXA1012	Reel Unit	55	CBF-135	Washer
9	BMZ23P030FMC	Screw	56	ENV1037	Gear
10	BSZ23P040FMC	Screw	57		Cover
11		Bracket	58	EBA1013	Screw
12	PMS26P025FUC	Screw	59	BMZ20P050FMC	Screw
13	ENC1013	Cassette Holder	★★ 60	EPB1001	Head
14	EBH1019	Spring	61	EBH1065	Spring
15	EBA1009	Screw	62	ENP1003	P.C.Board
16	ELA1042	Collar	63		Arm
17	ENV1032	Arm	64	EXA1004	Head Base Unit
18	ENV1031	Arm	65	EBH1004	Spring
19	YE12FUC	Washer	66	EBH1003	Spring
20-22	.....		67	CNV1667	Cushion
23	YE15FUC	Washer	68	YE20FUC	Washer
24	CBF-165	Washer	★★ 69	EXA1002	Roller Unit
25	EBH1049	Spring	70		Chassis Unit
26		Arm	71	EBF1004	Washer
27	EBH1060	Spring	72	ENV1009	Pulley
28	EBH1066	Spring	73		Lever
29		Arm	74	EBH1025	Spring
30		Arm	75	EBL1001	Spring
31	.....		76	ENV1010	Pulley
32		Arm	77		Arm
33	EBH1050	Spring	78	HBA-147	Screw
34		Arm Unit	79	ENV1035	Gear
35	CBG1001	Washer	80	ELA1018	Collar
36	HBF-179	Washer	81		Arm
37	ENV1029	Flywheel (N)	82		Plug
38	ENV1030	Flywheel (R)	83	ENV1011	Gear
★★ 39	ENT1003	Belt	84		Arm
40	ELA1051	Roller	85	EBH1024	Spring
41	EXA1014	Cassette Frame Unit	86		Ratchet
42	PMS20P040FMC	Screw	87	EBH1018	Spring
43	ENV1016	Tape Guide	★★ 88	EXA1003	Roller Unit
44	EBH1047	Spring	89		Arm
45		Lever	90		Lever
46		Arm	91	EBH1013	Spring
47	EBH1040	Spring	92	*	
48	EBH1041	Spring	93	ENV1043	Gear
49	EBH1021	Spring	94	ELA1032	Collar

23. ELECTRICAL PARTS LIST

NOTE:

- For your parts Stock Control, the fast moving items are indicated with the marks ** and *.
** : GENERALLY MOVES FASTER THAN *.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components. Chip Resistor
RS1/8S □□□J, RS1/10S □□□J
Chip Capacitor (except for CQS.....)
CKS....., CCS....., CSZS.....

• KE-3090SDK/WG, KE-3090/EW, KE-3090B/EI, KE-3070QR/ES

Unit Number :
Unit Name : AM Unit

MISCELLANEOUS

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	IC	201			PA4010	C	201	209 223 231			CKSQYB103K5
**	Q	201			2SK435	C	202	212 214			CKSQYB332K5
**	Q	202			2SC2458	C	203	215 216 219			CKSQYF473Z5
					(2SC1740S)	C	204	208 210			CKSQYB223K5
**	Q	203 204 205			DTC124ES	C	213				CCSQCH220J5
*	D	201 202 204 205			1SS176	C	206 207				CCSQCH820J5
					(1SS133)	C	211				CEA010M501L
					(US1040M)	C	218				CEA2R2M35NP
*	D	203		Variable Capacitance Diode	SVC203-AB	C	220				CCSQCH430J5
L	201			Ferri-Inductor 1mH	CTF1028	C	221				CCSQCH100D5
L	202			Ferri-Inductor 22μH	LAU220K	C	222				CSZA010K25
L	203			Ferri-Inductor 47μH	LAU470K	C	224 229				CEA470M16LL
L	204			Ferri-Inductor 100μH	CTF-157	C	225				CKSQYF333Z5
L	205			Ferri-Inductor 4.7μH	LAU4R7K	C	226				CKSYF683Z50
T	201			Coil	CTB1020	C	227				CEA4R7M35LL
T	202			Coil	CTB1004	C	228				CKSYB103K50
T	203			Coil	CTB1017	C	230				CEA220M161L
T	204			Coil	CTE1013	C	232				CCSQCH220J5
T	205			Coil	CTE1014						
T	206			Coil	CTE1015						
X	201			Xtal Resonator	CSS1014						
CF	201			Filter	CTF1027						
CF	202			Filter	CTF-100						

Unit Number :
Unit Name : FM Unit

MISCELLANEOUS

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
						**	IC	51			LA1140R
						**	IC	101			LA2110
						**	IC	151			LA3430P
R	201			RD1/4PS220JL		**	Q	1		Chip Transistor	2SA1162
R	202			RD1/4PS681JL							(2SA1179)
R	203 221			RD1/4PS222JL							
R	204			RS1/10S473J		**	Q	2		Chip Transistor	DTC124EK
R	205			RS1/10S470J		**	Q	51		Chip Transistor	2SC2712
											(2SD601)
R	206			RS1/10S222J		**	Q	71		Chip Transistor	2SJ106
R	207			RS1/10S822J		*	D	1			1S2473
R	208 212			RS1/10S103J							
R	209			RS1/8S470J		*	D	151			1S2473VH
R	210			RS1/10S682J		L	1	51		Ferri-Inductor 15μH	LAU150K
						T	51			Coil	CTC1029
R	211			RS1/10S104J		CF	51	52		Ceramic Filter	CTF-182
R	213			RS1/10S103J		CR	101				CW-107
R	214			RS1/10S103J							
R	220			RS1/8S0R0J		X	151			Ceramic Resonator	CSS1028
											(CSS1022)
						**	VR	1		Semi-fixed 10kΩ(B)	VRT8GV5103
						**	VR	51		Semi-fixed 150kΩ(B)	VRT8GV5151
						**	VR	152		Semi-fixed 15kΩ(B)	VRT8GV5153
										Front End Unit	CWR1032

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	====	Part Name	Part No.
					##	IC 801(WG)		KHA142
					##	IC 821(WG)		TA75558S
R	2	7 152		RS1/10S223J	##	Q 251 252 655 659 660 663 664		2SC2158
R	4	58 104		RS1/10S682J	##	Q 253(WG)		2SC2158
R	5			RS1/10S471J	##	Q 254 (WG)		2SA1048
R	6			RS1/10S681J				
R	8			RS1/10S102J	##	Q 605 703 712		DTC144ES
					##	Q 651 652		2SD1468S
R	21			RS1/8S0R0J	##	Q 653 669		2SD1919
R	51			RS1/10S0R0J	##	Q 654 657 658		2SA1048
R	52			RS1/10S331J	##	Q 665(WG)		DTC314TS
R	53 159			RS1/10S473J				
R	54			RS1/8S103J	##	Q 701		2SC2498
								(2SC2026)
R	55 60			RS1/10S153J	##	Q 702 707		2SC2158
R	56			RS1/10S123J	##	Q 704(EW, EI, ES)		DTC144ES
R	57			RS1/8S473J	##	Q 705(WG, EW, EI)		DTC144ES
R	59			RD1/4PS183JL	##	Q 706		2SK330
R	61 62 153			RS1/10S472J				
					##	Q 711 715		2SC3113
R	71			RS1/10S474J	##	Q 713(WG) 821(WG) 822(WG) 823(WG)		2SC2158
R	101			RS1/10S332J	*	D 251 656 662 665 703 707 771 772		1SS133
R	102			RS1/10S392J				(1SS176)
R	103			RS1/10S333J	*	D 565		HZS10EB1
R	106 151			RS1/10S222J				(RD10FSB1)
R	156(WG, EW, EI) 157(WG, EW, EI)			RS1/10S332J	*	D 601 653 714 715 716 717	1S1555	
R	156(ES) 157(ES)			RS1/10S202J	*	D 651		HZS9R1EB1
R	158			RS1/10S334J				(RD9R1ESB1)
					*	D 652 773 774 775 776 804		1SS133
								(1SS176)

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	====	Part Name	Part No.
C	1			CKSYR102K50	*	D 657		HZSR1EB2
C	2	3 101 102		CKSQYB103K25	*	D 658		(RD5R1ESB2)
C	4	51 52 53 54 59 151		CKSQYF473Z50	*	D 659		HZSTR5EB2
C	55 62			CCSQSL330J50				(RD7R5ESB2)
C	56 63			CEAR47M50LS2				HZSR6J82
					*	D 666(EW, EI, ES)		(RD5R6J8B2)
C	57			CKSYF104Z25				1SS133
C	58 156			CEA010M50LS2	*	D 701(WG)		(1SS176)
C	60			CCSQSL101J50				HZSR1EB2
C	61			CEA4R7M16NPL	*	D 702		(RD5R1ESB2)
C	70			CCSQCH200J50				HZSR0EB2
								(RD3R0ESB2)
C	103			CFA150M16LS	*	D 705		1SS135
C	104			CKSQYB182K50	*	D 710(ES) 718(ES)		1SS133
C	105			CFA470M16LS				(1SS176)
C	152			CKSQYB332K50	*	D 712(WG) 720(WG)		1SS133
C	153			CKSQYB223K25				(1SS176)
C	154			CKSQYB153K25	*	D 761		MA700
C	155			CFA3R3M50LS	*	D 801		FR005-10B
C	157			CS7AR22M35	L	702		LAU2R2M
C	158(WG, EW, EI)			CCSQSL681J50	L	801	Ferri-Inductor 2.2μH	CTH1021
C	159(WG, EW, EI) 160(WG, EW, EI)			CKSYB183K25	L	802 804	Choke Coil	CCG1003
							Filter	
C	159(ES) 160(ES)			CKSYR273K25	H	101		DSP-201M-BF
C	161			CFA101M10LS	X	701	Xtal Resonator	CS1011
					X	801(WG)	Ceramic Resonator	CS1019
Unit Number :					##	S 451 951 952 953	Switch	CSQ-207
Unit Name : Tuner Amp Unit					##	IL 771 772	Lamp 14V 40mA	CEL1034

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	====	Part Name	Part No.
##		IC 251		M51522AL	##	VR 451 452	Volume 50kΩ(B)	CCS-401
##		IC 451 771		TA75558S	##	VR 453/VR454/VR455/S561	Volume/Switch 200Ω, 50kΩ(W), 20kΩ(B)	CCS1037
##		IC 551		TA7200P			LCD	CW1216
##		IC 651		TA8214K				
##		IC 701		PD4163				

RESISTORS

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
R 251 252		RS1/10S151J	
R 257 258		RS1/10S133J	
R 259 260		RS1/10S334J	
R 261 262 467 468		RS1/10S272J	
R 263 264 453 454 455 456		RS1/10S332J	
R 265 266		RS1/10S104J	
R 271(WG) 272(WG)		RD1/4PS223JL	
R 273		RS1/8S0R0J	
R 274		RS1/10S0R0J	
R 275(WG)		RS1/10S103J	
R 308 309 653		RS1/10S471J	
R 401 402 463 662 664 666		RS1/10S103J	
R 457 459 555 556		RS1/10S153J	
R 458		RD1/4PM153J	
R 460		RD1/4PS153JL	
R 464		RS1/8S223J	
R 465 466 655 701 720 722 727		RS1/10S102J	
R 469 470		RS1/8S272J	
R 481 482 620 622 724 740		RS1/8S0R0J	
R 551 552		RD1/4PM103J	
R 553		RS1/8S101J	
R 554 704 705		RS1/10S101J	
R 557		RD1/4PS010JL	
R 604 739 780		RS1/10S222J	
R 621(WG, ES)		RS1/8S0R0J	
R 623 746 747 784		RS1/10S0R0J	
R 626(EW, EI, ES)		RS1/10S0R0J	
R 651 652 654 687		RS1/10S223J	
R 656		RS1/10S221J	
R 658 659 660 669 683 736		RD1/4PS103JL	
R 661 670 674 710 771 772 773		RS1/10S473J	
R 663 665 675 711 742		RD1/4PS472JL	
R 667		RS1/10S331J	
R 668		RD1/4PS221JL	
R 671		RS1/10S561J	
R 678		RD1/4PM821J	
R 682 684 735		RD1/4PS223JL	
R 702		RS1/10S182J	
R 703		RD1/4PS821JL	
R 706		RD1/4PS331JL	
R 707		RD1/4PS222JL	
R 708(WG)		RS1/10S103J	
R 709(WG) 827(WG)		RD1/4PS472JL	
R 712(WG) 713(WG) 802(WG)		RD1/4PS473JL	
R 714		RD1/4PM473J	
R 715(WG) 774		RS1/8S473J	
R 716		RD1/4PM393J	
R 717		RD1/4PS473JL	
R 718(WG, EW, EI) 719(WG, EW, EI)		RS1/10S222J	
R 718(ES)		RS1/10S0R0J	
R 719(ES)		RS1/10S272J	
R 721 741		RS1/10S472J	
R 723		RS1/10S152J	
R 728(WG) 801(WG) 826(WG)		RS1/10S222J	
R 729(WG) 821(WG)		RS1/10S223J	

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
R 733 737			RD1/4PM104J
R 738			RD1/4PS221JL
R 774			RS1/8S473J
R 775 776			RS1/10S154J
R 777 778			RS1/10S682J
R 779			RS1/10S563J
R 783			RS1/10S333J
R 812(WG)			RS1/10S221J
R 813(WG) 814(WG)			RS1/10S912J
R 815(WG)			RD1/4PS2R2JL
R 822(WG)			RS1/10S333J
R 823(WG)			RS1/10S182J
R 828(WG)			RS1/10S122J
R 829(WG)			RS1/10S472J
R 830(WG)			RS1/8S223J
R 831(WG)			RS1/10S563J
R 832(WG)			RS1/10S102J
R 833(WG)			RD1/4PS271JL

CAPACITORS

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
C 251 252			CCSQCH471J50
C 253 254			CEANL4R7M35L
C 255 256 563 655 661			CEA470M16LS
C 257 258 401 402 651 710 711 716 719 720			CKSQYB103K50
C 259 260 501 502			CKSQYB223K25
C 261			CEA101M10LL
C 263 471 656 659 660 773 774			CEA100M16LS2
C 453 454			CKSQYB332K50
C 457 458			CKSQYF333Z50
C 459 460			CCSQCH330J50
C 461 462			CEA4R7M35LS
C 463 464			CKSQYB272K50
C 465 466			CEAR33M50LS2
C 503			CGCYX223K25
C 551 552			CCSQCH331J50
C 553 554			CFA010M150LS2
C 555 556			CEA170M16I.2
C 557 558			CFA101M10I.2
C 559 560			QMA224.150
C 561 562			CFA102M10I.2
C 564			CFA222M16I.2
C 565			QMA154.150
C 654			CFA680M10LS
C 657 670 713			CKSQYF473Z25
C 658			CEA170M16LS
C 663 664 801			CKSQYB472K50
C 665			CFA220M16LS
C 671			CEA470M10I.2
C 672			CFA331M10I.2
C 673			CEA170M10LS
C 701			CCSQSI.561J50
C 702 735			CKSQYB103K50
C 703 704			CCSQCH101J50
C 705			CCH1005
C 706(WG)			CKSQYB102K50

4.7 μ F/16V

Mark ===== Circuit Symbol & No. === Part Name Part No. Unit Number :
Unit Name : Front L Unit

C 707 730 CKSYB103K50
C 709(WG, EW, EI) CFAR47M50LS2
C 714 715 CCSQCH090050
C 771 772 CEA4R7M16NPLJ
C 802 CEA100M25LS

Mark ===== Circuit Symbol & No. === Part Name Part No.
** IL 901 902 903 Lamp 14V 40mA CEL1004
** S 904 905 906 907 908 914 915 924 925 926 Switch CSG1021
** S 934 935 936 Switch CSG1021

C 805(WG) CEA220M16LS
C 806(WG) CKSQYB103K50
C 807(WG) CQMA683K50
C 808(WG) 829(WG) CEA470M16LS
C 809(WG) 821(WG) 830(WG) CEA4R7M35LS

Unit Number :
Unit Name : Front R Unit

C 810(WG) CFAR33M50LS2
C 822(WG) 825(WG) CFAR47M50LS2
C 823(WG) 824(WG) CKSQYB223K25
C 826(WG) CCSQCH471LS0
C 827(WG) CCSQCH271LS0

Mark ===== Circuit Symbol & No. === Part Name Part No.
* D 951 952 LED SLR-320DU3LM
** IL 951 Lamp 14V 40mA CEL1004

Unit Number :
Unit Name : Switch P.C.Board

Unit Number :
Unit Name : MS Dolby NR Unit

MISCELLANEOUS

Mark ===== Circuit Symbol & No. === Part Name Part No.
* D 1 F1SR35-100A
** S 1 2 Switch(Mute, Motor) ESN1001
** S 3 Switch(Tape/Tuner) HSK-126

Mark ===== Circuit Symbol & No. === Part Name Part No.

** IC 301 CXA1102P
** IC 401 PA0011
** Q 401 402 2SC2458
** Q 403 2SA1048
* D 401 HZS9R1EB2

Unit Number :
Unit Name : P.C.Board Unit

Mark ===== Circuit Symbol & No. === Part Name Part No.
** S 1 Switch(FWD/REV) ESH1001

** VR 301 302 Semi-fixed 33kΩ(B) VRTB6VS333 Miscellaneous Parts List

RESISTORS

Mark ===== Circuit Symbol & No. === Part Name Part No.

Mark ===== Circuit Symbol & No. === Part Name Part No.
R 301 RS1/10S433J
R 302 RS1/8S103J
R 303 403 410 RS1/10S103J
R 305 RS1/10S273J
R 306 RS1/10S273J

R 404 RS1/10S224J
R 405 RS1/10S154J
R 406 RS1/10S223J
R 407 408 RD1/4PS222JL
R 409 RS1/10S271J

R 411 RD1/4PS472JL
R 415 RS1/10S0R0J

** HD 1 Head EPB1001
** M 1 Motor Unit EXA1013
* SO 1 Solenoid EXP1001
B 761 Battery CEX1005 (CEX1008)

CAPACITORS

Mark ===== Circuit Symbol & No. === Part Name Part No.

C 301 302 404 405 406 CEA010M50LS2
C 319 CEA101M101L
C 321 409 CEA470M16LS
C 322 323 CFAR68M50LS2
C 324 408 CEA4R7M35LS

C 325 CKSQYB103K50
C 403 CKSQYB392K50
C 407 CEA220M16LS

• KE-3060SDK/WG, KE-3060/EW, KE-3060B/EI, KE-3040/ES

Model Number : KE-3060SDK/WG

Unit Number :
Unit Name : AM Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
** IC 201				PA4010	
** Q 201				2SK435	
** Q 202				2SC2458 (2SC1740S)	
** Q 203 204 205				DTC124ES	
* D 201 202 204 205				1SS176 (1SS133) (US1040M)	
* D 203				SVC203-AB	
L 201				CTF1026	
L 202				Ferri-Inductor 22 μ H	LAU220K
L 203				Ferri-Inductor 47 μ H	LAU470K
L 204				Ferri-Inductor 100 μ H	CTF-157
L 205				Ferri-Inductor 4.7 μ H	LAU4R7K
T 201				Coil	CTB1020
T 202				Coil	CTB1004
T 203				Coil	CTB1017
T 204				Coil	CTE1013
T 205				Coil	CTE1014
T 206				Coil	CTE1015
X 201				Xtal Resonator	CSS1014
CF 201				Filter	CTF1027
CF 202				Filter	CTF-100

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R 201				RD1/4PS220.JL	
R 202				RD1/4PS681.JL	
R 203 221				RD1/4PS222.JL	
R 204				RS1/10S473J	
R 205				RS1/10S470J	
R 206				RS1/10S222J	
R 207				RS1/10S822J	
R 208 212				RS1/10S103J	
R 209				RS1/RS470J	
R 210				RS1/10S682J	
R 211				RS1/10S104J	
R 213				RS1/10S103J	
R 214				RS1/10S103J	
R 220				RS1/RS0R0J	

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C 201 209 223 231				CKSQYB103K50	
C 202 212 214				CKSQYB332K50	
C 203 215 216 219				CKSQYF473Z50	
C 204 208 210				CKSQYB223K50	
C 213				CCSQCH220J50	

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C 206 207				CCSQCH20J50	
C 211				CEA010M501.L	
C 218				CEA2R2M35NPL.L	
C 220				CCSQCH430J50	
C 221				CCSQCH100D50	

C 222				CSZA010K25	
C 224 229				CEA470M16.L	
C 225				CKSQYF333Z50	
C 226				CKSYF683Z50	
C 227				CEA4R7M351.L	
C 228				CKSYB103K50	
C 230				CEA220M16.L	
C 232				CCSQCH220J50	

Unit Number :
Unit Name : FM Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
** IC 51				LA1140R	
** IC 101(WG, EW, EI)				LA2110	
** IC 151				LA3430P	
** Q 1				Chip Transistor	2SA1162 (2SA1179)
** Q 2				Chip Transistor	DTC124EK
** Q 51				Chip Transistor	2SC2712 (2SD601)
** Q 71				Chip Transistor	2SJ106
* D 1					1S2473
* D 151					1S2473VH

L 1 51				Ferri-Inductor 15 μ H	LAU150K
T 51				Coil	CTC1029
CF 51 52				Ceramic Filter	CTF-182
CR 101(WG, EW, EI)					CWV-107
X 151				Ceramic Resonator	CSS102R (CSS1022)
** VR 1				Semi-fixed 10k Ω (B)	VRTB6VS103
** VR 51				Semi-fixed 150k Ω (B)	VRTB6VS154
** VR 152				Semi-fixed 15k Ω (B)	VRTB6VS153
				Front End Unit	CWB1032

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R 2 7				RS1/10S223J	
R 4 58				RS1/10S682J	
R 5				RS1/10S471J	
R 6				RS1/10S681J	
R 8				RS1/10S102J	
R 21				RS1/RS0R0J	
R 51				RS1/10S0R0J	
R 52				RS1/10S331J	
R 53				RS1/10S473J	
R 54				RS1/RS103J	
R 55 60				RS1/10S153J	
R 56				RS1/10S123J	
R 57				RS1/RS473J	
R 59				RD1/4PS183.JL	
R 61 62 153				RS1/10S472J	

Mark	Circuit Symbol & No.	Part Name	Part No.	Mark	Circuit Symbol & No.	Part Name	Part No.
R 71			RS1/10S474.J	** Q	651 652		2SD1468S
R 101(WG, EW, EI)			RS1/10S332.J	** Q	653 669		2SD1919
R 101(ES)			RS1/10S183.J	** Q	654 657 658		2SA104R
R 102(WG, EW, EI)			RS1/10S392.J	** Q	655 659 660 663 664		2SC2458
R 103(WG, EW, EI)			RS1/10S333.J	** Q	665(WG)		DTC314TS
R 104(WG, EW, EI)			RS1/10S682.J	** Q	701		2SC2498
R 106(WG, EW, EI)			RS1/10S222.J				(2SC2026)
R 151			RS1/10S222.J	** Q	702 707		2SC2458
R 152(WG, EW, EI)			RS1/10S223.J	** Q	704(EW, EI, ES)		DTC144ES
R 156(WG, EW, EI) 157(WG, EW, EI)			RS1/10S332.J	** Q	705(WG, EW, EI)		DTC144ES
R 156(ES) 157(ES)			RS1/10S202.J	** Q	706		2SK330
R 158			RS1/10S334.J	** Q	711 715		2SC3113
R 159(WG, EW, EI)			RS1/10S473.J	** Q	713(WG) 821(WG) 822(WG) 823(WG)		2SC2458
R 159(ES)			RS1/10S183.J	* D	251 656 662 665 703 707 771 772		1SS133 (1SS176)

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.		
C	1		CKSYB102K50	# D	565
C	2 3		CKSQYB103K25	# D	601 653 714 715 716 717
C	4 51 52 53 54 59		CKSQYF473Z50	# D	651
C	55 62		CCSQSL330J50	# D	652 773 774 775 776
C	56 63		CEAR47M50LS2	# D	657
C	57		CKSYF104725	# D	658
C	58 156		CFA010M50LS2	# D	666(EW, EI, ES)
C	60		CCSQSL101J50	# D	659
C	61(WG, EW, EI)		CFA4R7M16NPLL	# D	701(WG)
C	61(ES)		CFA220M16LS	# D	702
C	70		CCSQCH200J50	# D	705
C	101(WG, EW, EI) 102(WG, EW, EI)		CKSQYB103K25	# D	710(ES) 718(ES) 803(ES)
C	103(WG, EW, EI)		CFA150M16LS	# D	712(WG) 720(WG)
C	104(WG, EW, EI)		CKSQYB182K50	# D	761(WG, EW, EI)
C	105(WG, EW, EI)		CEA470M16LS	# D	801
C	151(WG, EW, EI)		CKSQYF473Z50	# D	802(ES)
C	151(ES)		CEAR47M50LS	# D	804(WG, EW, EI)
C	152		CKSQYB332K50		
C	153		CKSQYB223K25		
C	154		CKSQYB153K25		
C	155		CEA3R3M50LS		
C	157		CS7AR22M35		
C	158(WG, EW, EI)		CCSQSL6R1J50		
C	159(WG, EW, EI) 160(WG, EW, EI)		CKSYB183K25		
C	159(ES) 160(ES)		CKSYB273K25		
C	161		CFA101M10LS		

Unit Number :
Unit Name : Tuner Amp Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.			
				H 101		DSP-201M-BF
				X 701	Xtal Resonator	CSS1011
				X 801(WG)	Ceramic Resonator	CSS1019
**	IC 251		M51522AI.	** IL 771 772	Lamp 14V 40mA	CEI1034
**	IC 551		TA7280P			
**	IC 651		TA8214K	** VR 453	Volume 50kΩ (G)	CCS-402
**	IC 701		PD4163	** VR 454/VR455/S561	Volume/Switch 200Ω, 20kΩ (B)	CCS1109
**	IC 771		TA7555RS	** VR 456	Volume 20kΩ (A)	CCS-374
					LCD	CW1216
**	IC 801(WG)		KHA142			
**	IC 821(WG)		TA75558S			
**	Q 253(WG)		2SC2458			
**	Q 254(WG)		2SA1048			
**	Q 605 703 712		DTC144ES			

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R 251 252		RS1/10S151.J	
R 257 258		RS1/10S133.J	
R 259 260		RS1/10S334.J	
R 261 262 723		RS1/10S152.J	
R 271(WG) 272(WG)		RD1/4PS223.JL	
R 273		RS1/8S222.J	
R 274 604 739 780		RS1/10S222.J	
R 275(WG) 708(WG)		RS1/10S103.J	
R 451 452		RS1/10S272.J	
R 463 662 664 666		RS1/10S103.J	
R 464		RS1/8S223.J	
R 467(WG)		RS1/10S0R0.J	
R 468 623 746 747 784		RS1/10S0R0.J	
R 469 470		RS1/8S272.J	
R 481 482		RS1/8S102.J	
R 551 552		RD1/4PM103.J	
R 553		RS1/8S101.J	
R 554 704 705		RS1/10S101.J	
R 555 556		RS1/10S153.J	
R 557		RD1/4PS010.JL	
R 620 622 724 740		RS1/8S0R0.J	
R 621(WG, ES)		RS1/8S0R0.J	
R 626(EW, EI, ES)		RS1/10S0R0.J	
R 651 652 654 687		RS1/10S223.J	
R 653		RS1/10S471.J	
R 655 701 720 722 727		RS1/10S102.J	
R 656		RS1/10S221.J	
R 658 659 660 669 683 736		RD1/4PS103.JL	
R 663 665 675 711 742		RD1/4PS472.JL	
R 667		RS1/10S331.J	
R 668		RD1/4PS221.JL	
R 670 674 710 771 772 773		RS1/10S473.J	
R 671		RS1/10S561.J	
R 678		RD1/4PM821.J	
R 682 684 735		RD1/4PS223.JL	
R 702		RS1/10S182.J	
R 703		RD1/4PS821.JL	
R 706		RD1/4PS331.JL	
R 707		RD1/4PS222.JL	
R 709(WG) 827(WG)		RD1/4PS472.JL	
R 712(WG) 713(WG) 802(WG)		RD1/4PS473.JL	
R 714		RD1/4PM473.J	
R 715(WG)		RS1/8S473.J	
R 716		RD1/4PM393.J	
R 717		RD1/4PS473.JL	
R 718(WG, EW, EI) 719(WG, EW, EI)		RS1/10S222.J	
R 718(ES)		RS1/10S0R0.J	
R 719(ES)		RS1/10S272.J	
R 721 741		RS1/10S472.J	
R 728(WG) 801(WG) 826(WG)		RS1/10S222.J	
R 729(WG) 777(WG) 778(WG) 821(WG)		RS1/10S223.J	
R 733 737		RD1/4PM104.J	
R 738		RD1/4PS221.JL	
R 774		RS1/8S473.J	
R 775(WG) 776(WG)		RS1/10S184.J	
Mark	Circuit Symbol & No.	Part Name	Part No.
R 775(EW, EI, ES)	776(EW, EI, ES)		RS1/10S154.J
R 779			RS1/10S563.J
R 783			RS1/10S333.J
R 812(WG)			RS1/10S221.J
R 813(WG)			RS1/10S912.J
R 815(WG)			RD1/4PS2R2.JL
R 822(WG)			RS1/10S333.J
R 823(WG)			RS1/10S182.J
R 828(WG)			RS1/10S122.J
R 829(WG)			RS1/10S472.J
R 830(WG)			RS1/8S223.J
R 831(WG)			RS1/10S563.J
R 832(WG)			RS1/10S102.J
R 833(WG)			RD1/4PS271.JL

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C 251 252		CCSQCH471.J50	
C 253 254		CEANI4R7M351.L	
C 255 256 563 655 661		CEA470M161.S	
C 257 258 651 710 711 716 719 720		CKSQYB103K50	
C 261		CEA101M101.L	
C 451 452 553 554		CEAO10M501.S2	
C 465 466		CEAR47M501.S2	
C 471 656 659 660		CEA100M161.S2	
C 473 474		CEAR15M501.S2	
C 501 502		CKSQYB223K25	
C 503		CGEYX223K25	
C 551 552		CCSQCH331.J50	
C 555 556		CEA470M161.2	
C 557 558		CEA101M101.2	
C 559 560		CWA224.J50	
C 561 562		CEA102M101.2	
C 564		CEA222M161.2	
C 565		CWA154.J50	
C 654		CEA680M101.S	
C 657 670 713		CKSQYF473Z25	
C 658(WG, EW, EI)		CEA470M161.S	
C 658(ES)		CC1013	
C 663 664 801		CKSQYB472K50	
C 665		CEA220M161.S	
C 671		CEA470M101.2	
C 672		CEA331M101.2	
C 673		CEA470M101.S	
C 701		CCSQSL561.J50	
C 702 735		CKSQYB103K50	
C 703 704		CCSQCH101.J50	
C 705		CC1005	
C 706(WG)		CKSQB102K50	
C 707 730		CKSQB103K50	
C 709(WG, EW, EI)		CEAR47M501.S2	
C 714 715		CCSQCH090D50	
C 771(WG) 772(WG)		CEA47M16NPL.L	
C 771(EW, EI, ES) 772(EW, EI, ES)		CEA47M351.S	
C 773(WG) 774(WG)		CEA400M161.S2	
C 802		CEA400M251.2	
C 803(ES)		CEA400M251.2	

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

		C 804(ES)			CKSQYB472K50
		C 805(WG)			CEA220M16LS
		C 806(WG)			CKSQYB103K50
		C 807(WG)			CQMA683K50
		C 808(WG) 829(WG)			CEA470M16LS
		C 809(WG) 821(WG) 830(WG)			CEA4R7M35LS
		C 810(WG)			CEAR33M50LS2
		C 822(WG) 825(WG)			CEA100M16LS2
		C 823(WG) 824(WG)			CKSQYB223K25
		C 826(WG)			CCSQCH471J50
		C 827(WG)			CCSQCH271J50

Unit Number :

Unit Name : Front L Unit

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

**		IL 901 902 903		Lamp 14V 40mA	CEL1004
**		S 904 905 906 907 908 914 915 924 925 926		Switch	CSG1021
**		S 934 935 936		Switch	CSG1021

Unit Number :

Unit Name : Front R Unit

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

*		D 951 952		LED	SLR-320DU3LM
**		IL 951		Lamp 14V 40mA	CEL1004

Unit Number :

Unit Name : Switch P.C.Board

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

**		S 1 2		Switch(Mute, Motor)	FSN1001
**		S 3		Switch(Tape/Tuner)	HSK-126

Unit Number :

Unit Name : P.C.Board Unit

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

**		S 1		Switch(FWD/REV)	ESH1001

Miscellaneous Parts List

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.

**		HD 1		Head	EPB1001
**		M 1		Motor Unit	EXA1013
		B 761		Battery	CEX1005 (CEX1008)

24. PACKING METHOD

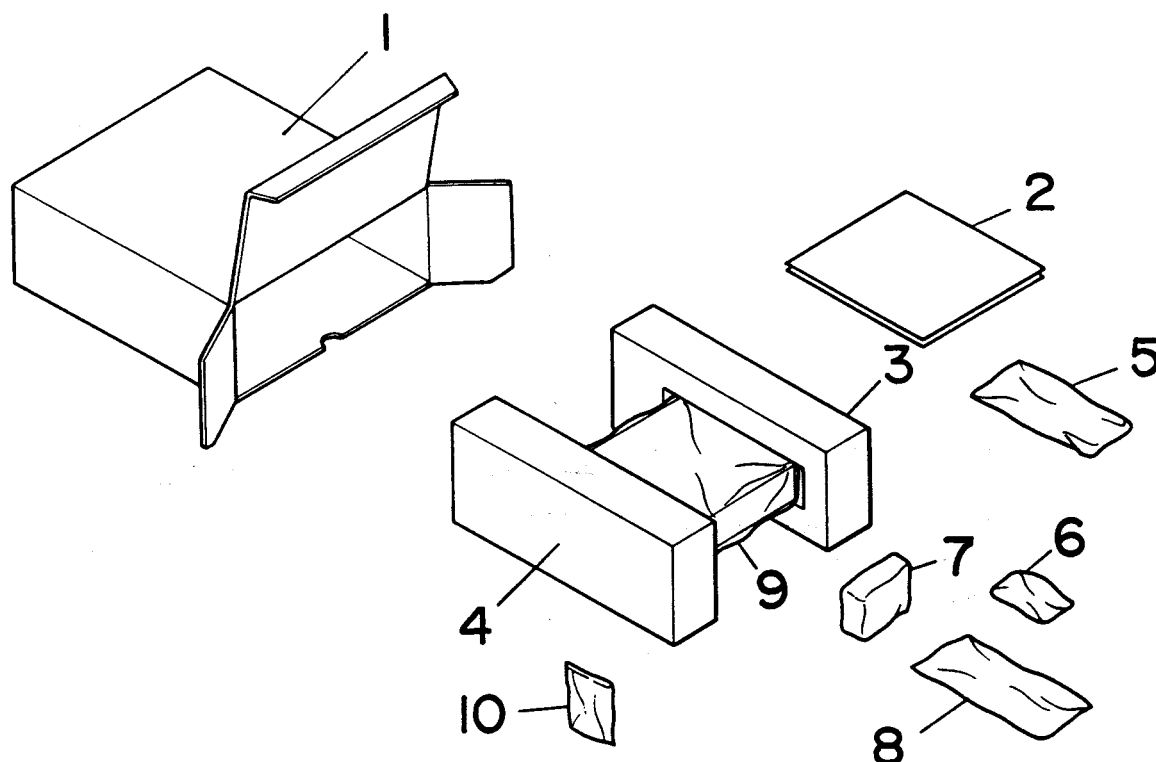


Fig. 32

• Parts List

Mark No.	Part No.	Description	Mark No.	Part No.	Description
1	CHG1475	Carton (KE-3090SDK)	5	CEA1256	Accessory Assy
	CHG1476	Carton (KE-3090)	5-1	CNS1260	Escutcheon
	CHG1471	Carton (KE-3090B)	5-2	CNS1261	Escutcheon
	CHG1479	Carton (KE-3070QR)	6	CDE1456	Cord Assy (except KE-3040)
	CHG1477	Carton (KE-3060SDK)	7	CDE2053	Cord Assy (except KE-3040)
	CHG1478	Carton (KE-3080)		CDE2114	Cord Assy (KE-3040)
	CHG1473	Carton (KE-3060B)	8	CEA1257	Accessory Assy
	CHG1480	Carton (KE-3040)	8-1	CDE1289	Cord
2-1	CRD1216	Owners' Manual (KE-3090SDK, 3060SDK)	8-2	CNC2346	Hook(X2)
	CRD1217	Owners' Manual (KE-3090, 3060)	8-3	CNF-111	Strap
	CRD1218	Owner's Manual (KE-3090B, 3060B) (English, French, Italian)	8-4	CNV1009	Bush
	CRB1116	Owner's Manual (KE-3090B, 3060B) (Swedish)	8-5		Screw Assy
	CRD1220	Owner's Manual (KE-3070QR, 3040)	8-5-1	CBA-102	Screw
			8-5-2	CBA1002	Screw
2-2		Passport (KE-3090SDK, 3060SDK)	8-5-3	NF50FMC	Nut(X2)
2-3		Card (except KE-3070QR, 3040)	9	CEG-162	Polyethylene Bag
2-4		Cautin Card (KE-3090SDK, 3060SDK)	10-1	CBA1074	Screw(X2) (KE-3090B, 3060B)
2-5		Cautin Card (KE-3090SDK, 3060SDK)	10-2	CNC1379	Handle (KE-3090B, 3060B)
3	CHP1098	Styrofoam (KE-3090SDK, 3090B, 3060SDK, 3060, 3040)			
	CHP1067	Styrofoam(R) (KE-3090B, 3070QR, 3060B)			
4	CHP1098	Styrofoam (KE-3090SDK, 3090B, 3060SDK, 3060, 3040)			
	CHP1066	Styrofoam(L) (KE-3090B, 3070QR, 3060B)			